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Gordion: Preliminary Report, 1953

RODNEY S. YOUNG

PLATES 1-10

BY THE END of the 1952 campaign of the University Museum expedition to Gordion the east gate of the city of Achaemenian times had been cleared and planned, and a considerable area to the west of it had been laid bare down to the latest Hellenistic level. The work of previous seasons had indicated the southeast side of the mound as the most profitable place to dig, including within its area public buildings on a very considerable scale and dating from the time of the Persian Empire.¹ The city gate itself is a monumental structure extending to a length of nearly 50 m., and divided into three parts—a central gateway with inner and outer court, flanked at either side by a court backed against the

of sun-dried brick. Wooden beams laid horizontally in the face of the masonry (pl. 1, fig. 2), probably themselves a carry-over from crude-brick construction,² seem to have served to carry decorative friezes of moulded and painted terra cotta tiles.

To the south of the Gate Building lay another structure of Achaemenian times (Building A), of masonry and crude brick, nearly 80 m. in length and consisting of a series of six parallel rooms, each with a *distyle in antis* porch facing on the city (plan, fig. 3). The west side of Building A has been cleared only enough to recover its general plan and to reveal its extent, and only the two northernmost rooms have been exposed to the full extent to which

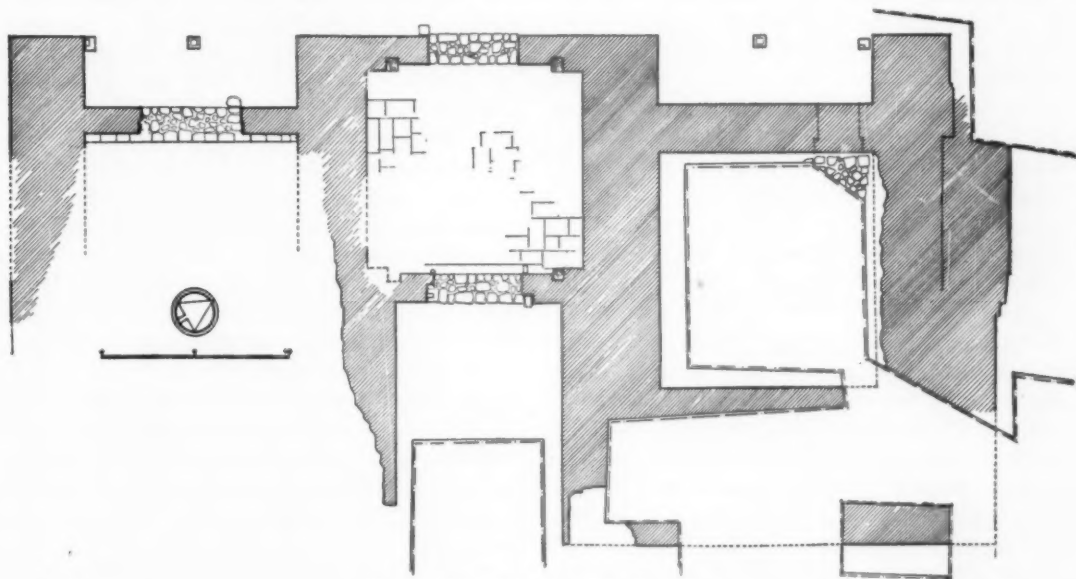


FIG. 1. Plan of Persian Gate Building

inner face of the city wall and opening toward the city side through a porch with a façade of three pillars *in antis* (plan, fig. 1). The building was of dressed stone to a height of about 3 m.; above that,

they are preserved. The east side of the building stood on a great bastion jutting out from the city wall and supported by retaining walls which have long since collapsed, carrying the building with

¹ Brief progress reports on the Gordion excavations have appeared in the *UPMB* 16 no. 1 (1952) 3ff. and 17 no. 4 (1953) 3ff.; in *Archaeology* 3 no. 4 (1950) 197ff., and 6 no. 3 (1953) 159ff.; also in *ILN* (Jan. 3, 1953) 20ff.

² Compare the way in which horizontal string-courses of stone run at intervals, and with no apparent reason, through the

elaborate polygonal masonry of the archaic walls at Larisa: K. Schefold, *Larisa am Hermos* 1, p. 46, pls. 3, 4, and 28. The setting of wooden beams into wall faces seems to have been a specialty of Phrygia, as in the walls of the Phrygian city at Alishar: H. H. von der Osten, *The Alishar Hüyük, Seasons of 1930-1932* II, 292ff., fig. 318.

them, so that there is no hope of recovering information about this part of it. A deep trench made well down the east slope of the mound, however, did reveal the foundation for the southeast corner of the retaining wall of the bastion, and this gave an approximate width of 40 m. of space available for the building from northwest to southeast, though Building A may not have occupied the entire width of the bastion to its outer edge. A structure on this scale, standing in part on an artificial bastion filled with hundreds of cubic meters of rubble and stone with logs of wood as binding, can have been only an important public building, perhaps the palace of the representative of the Persian king. The area immediately to the west seems to have been divided from the rest of the city by a screen wall, at the same time giving privacy and controlling access to the building. Further, a paved street, under which was laid a stone drain, ran eastward between the north end of Building A and the Gate Building; this street with its drain must have passed through the city wall by a postern gate which gave private access to the outer world from Building A.

To the north of the main trench a smaller cut, made in 1950-1951, had been carried to a depth of 16 m. in order to test the stratification of the mound at a point away from its edge. This sondage had revealed six major periods of settlement: Hellenistic, Archaic, later Phrygian, characterized by painted pottery, early Phrygian, with plenty of the typical gray ware, but no painted, Hittite, and Early Bronze ("Copper") Age. Water was reached at a depth of 16 m. and we were unable to pursue the sequence any farther; but the indications are that the site was continuously occupied from the Early Bronze Age until Roman times, though the greater part of the area was abandoned as early as the beginning of the second century B.C.³ In addition to this stratigraphic information our cut contained a temple-like building with cella and pro-naos, oriented toward the northwest (plan, fig. 3),

of the time of the Persian Empire, and part of a building beneath it, apparently of very considerable dimensions, and dating from later Phrygian times.

Our objective for the 1953 campaign was two-fold; to clear a greater area to the west of the city gate down to the Persian level, linking up the isolated sondage with the main trench, and at the same time to dig deeper in the part already exposed in order to get a glimpse of the Gordion of Phrygian times when it was presumably at the height of its prosperity and power. In consequence, one part of the staff⁴ was engaged in clearing away the surface and Hellenistic fills to the west and north of the gate, and in studying the Persian level itself, while the other was making cuts to the Phrygian level in the area of the Persian Gate Building.

The surface operations accomplished the clearing of a large area to the west of the gate and the linking of the isolated, deep sondage with the main trench. At the end of the season this area was left at a fourth century B.C. level. In the three to four meters of fill removed there were almost no complications in the way of houses or buildings of Hellenistic times; the area had been very thoroughly ransacked for building material, doubtless in the later Hellenistic and Roman settlements at the south edge of the mound. When the fill had been cleaned to a good ground level, presumably of the fourth century, there remained some regular rectangular cuttings through that level, evidently representing the positions of houses which had been looted of all building material for reuse. In several places in the fragmentary remains of Hellenistic houses, pits were found dug through the floors, and these produced a certain amount of local pottery of interest not only in itself but as indicative (when it could be dated) of the time at which the larger, underlying buildings of the time of the Persian Empire had been abandoned. One such vessel is a tripod ring-stand of gray ware, its surface polished to a dull metallic luster (pl. 1, fig. 4). The horizontal grooving of the hollow ring as well as the

³ Strabo (12. 567. 8) remarks that in his time the former capital of Phrygia had shrunk to a mere hamlet. Livy (38. 18) says that in 189 B.C. Manlius Volso found the town abandoned by its inhabitants; apparently the majority of them never came back, for except in the very limited area of the settlement of Roman times along the south and southwest rim of the mound, we find nothing to be dated later than the beginning of the second century B.C.

⁴ The staff consisted of R. S. Young, Director; G. R. Edwards, Associate Director; Dorothy H. Cox, Architect; Ellen Kohler, assisted by Mrs. Oberlin, in charge of cleaning and records; Jeanny E. Vorys, a student at the Oriental Institute

of the University of Chicago, David Oberlin, a student at Pennsylvania, and Nancy Alexander of Bryn Mawr, a student at the American School at Athens, all excavators. Mabel Lang and Machteld Mellink came after the end of the spring term at Bryn Mawr; and still later, J. L. Benson. Carolyn Pitts of the Philadelphia Art Museum and Margaret Cornelius paid brief visits during which they performed very useful service by making drawings and water-colors. Our Commissioner representing the Turkish Archaeological Service was Raci Temizer, who has been with us since the beginning and who is indispensable. Work began at the end of March and continued until after the middle of August.

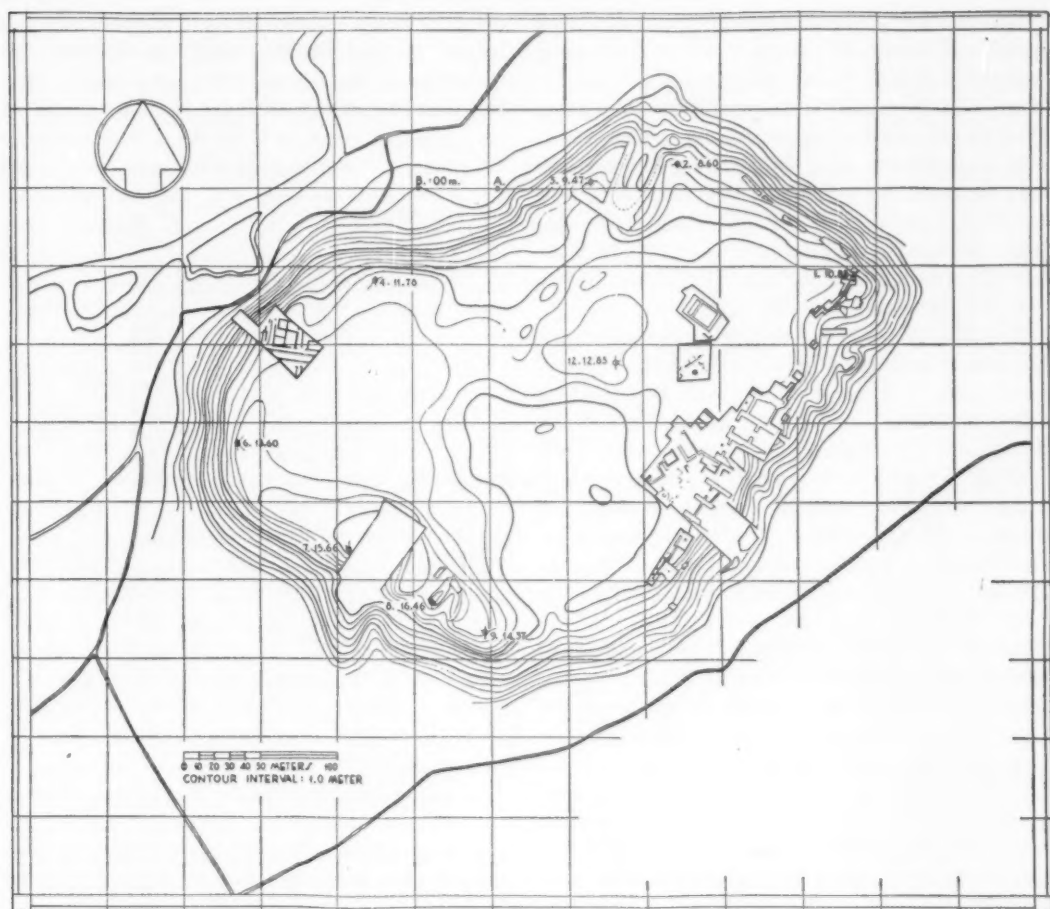


FIG. 3. Plan of the City Mound at the End of the 1952 Campaign

polish suggest imitation of a model made of metal. A rhyton of finer fabric in the same gray ware, its surface finished to a glossy black polish, and ending at the bottom in a lion's head (pl. 1, fig. 5) is even more clearly an imitation of a metal original; very similar, though earlier, are rhyta of silver and gold in the Hermitage, found in the Seven Brothers kurghans in the Kuban.⁵ Although no metal vessels which may have served as models have as yet been found at Gordion, there is considerable

evidence for a bronze-working industry on the site in Hellenistic times and perhaps earlier, in the form of slag deposits and of fragments of crucibles from which molten metal has been poured.⁶

Probably no substantial buildings are to be expected immediately to the west of the Persian Gate, which must have opened onto a plaza with streets running off in various directions—one, certainly, on the line of our trench and connecting the gate with the temple-like building to the north. Two new

⁵ Rostovtzeff, *Iranians and Greeks in South Russia*, 53, pl. XII; dated in the fifth century. Frequent affinities between objects found at Gordion and Scythian objects from South Russia suggest a common Iranian origin and a center of diffusion in the Persian Empire.

⁶ Bronze cauldrons and smaller vessels were found by the Koertes in the tumuli which they excavated in 1900: cf. Koerte, *Gordion*, *JDAI*, *Ergänzungsheft* V, 68ff., 101ff., figs. 44-59 and 73-74. At Gordion the finding in great numbers of bronze fibulae, almost all of Blinkenberg's Asia Minor

types, suggests that they may have been made there. Many of Blinkenberg's examples are from Gordion itself, and many others from nearby parts of Phrygia—Dorylaion, Ankara, Eskişehir; cf. C. Blinkenberg, *Fibules grecques et orientales*, 204ff. Although the manufactory has not yet been definitely fixed at Gordion by the finding of some such item as a fibula mould, the evidence for a local bronze-working industry together with the numbers in which these fibulae are found there make Gordion a very strong candidate as a seat of manufacture.

buildings of the Persian period, however, were found and examined: one, a small enclosure with a hearth, lay close beside the Gate Building at the north, and the second to the west of its south wing. Both lie on a deep filling of clay over rubble which had been thrown in at the time the Persian gate was built, and the stratification showed that both were constructed after the gate itself had been built, though all were probably parts of the same building program and the actual difference in time between them was probably slight.

The first of these was an enclosure partly open to the sky and containing near its center a hearth or fire-place. The small building was as much later than the Persian Gate, which it adjoins immediately to the north, as an alteration or repair in the north wall of the gate itself, which for some reason—probably because of settling—was made of double thickness by the addition of a second wall along the outer face of the first (plan, fig. 1). This addition was doubtless made before the Gate Building was actually finished; the lowest floor over the building fill at the west,⁷ of polychrome small pebbles, runs against its north face, so that it seemingly was added at least before the laying of the floor outside the north court of the building at the west. The same pebble floor runs against the south wall of the Hearth Building; and the east end of the same wall is laid against the face of the doubled north wall of the Persian Gate. Gate Building and Hearth Building would thus seem to be closely contemporary.

The original enclosure was almost square, with interior dimensions of 5.40 m. north-south by 5.60 m. east-west (plan, fig. 6). It has been entirely cleared except for the west wall which underlies the foundation of a later reconstruction. The walls are built of well-laid stones, mostly combining a line of small blocks with a line of heavier ones in their thickness. The upper part must have been of sun-dried brick resting on this stone socle. The floor, a layer of hard earth mixed with crushed stone, immediately overlies the uppermost working-level floor of the Gate Building fill. Several post-holes, more or less symmetrically arranged, suggest that the small room had at least four interior roof supports. At about the center of the room lay the hearth, 60 cm. in diameter and bedded on pebbles. Much ash and burnt earth overlay the hearth and the floor around it. An opening in the roof above

this fire-place is most likely, and probably the posts helped to support a shed roof running along the four sides of the room and around a central opening. The entrance perhaps lay near the southwest

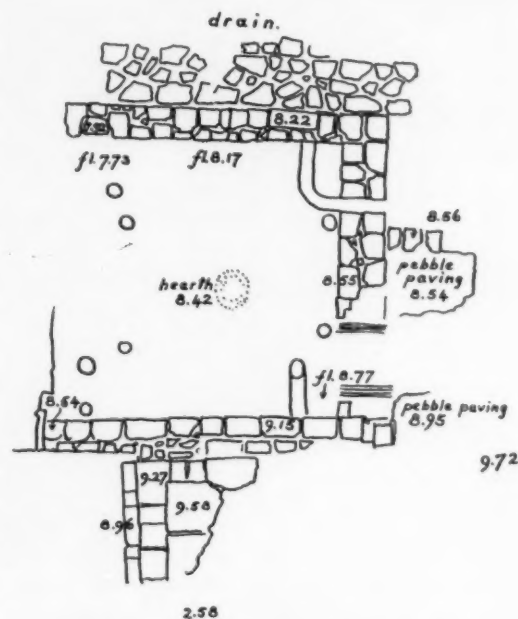


FIG. 6. Plan of earliest Hearth Building

corner, where a door would have made a good connection with the pebble-paved area west of the Gate Building. Since a small patch of the same pebble flooring was still preserved to the east of the Hearth Building, another entrance at its east side is likely.

The first reconstruction of the Hearth Building was preceded by the laying of a built drain along its north side, made of stone with a clay floor and covered by stone slabs. The new building was made with squared blocks laid on beam foundations on top of the socle walls of the earlier building (pl. 2, fig. 7). These beams are found as a dense bedding of wooden logs laid parallel to each other and at right angles to the direction of the wall they carried, the beams projecting beyond the inner faces of the walls and their ends embedded in the fill beneath the floor. This beam-foundation construction, which is typical at Gordion, underlies the west, north, and east walls of the new Hearth Building; furthermore, the outer ends of the beams

⁷ For convenience of reference, the Persian Gate Building, which actually runs north-northeast to south-southwest, is

taken as running north-south and as opening into the city from the east.

at the north were laid up against the side of the drain. The south wall of the building had been entirely plundered; but there were no traces of a beam foundation and perhaps one was not considered necessary because the south wall was laid up against the massive north wall of the Gate Building. Since the builders must have known that the entire mound was an artificial accumulation of fill with many probable soft spots in unpredictable places, they may have tried to anticipate and prevent the sinking of their walls over such places by spreading the weight on wide foundations made of long wooden beams or logs.

The new Hearth Building was little larger than the old, though more carefully built; its inside dimensions were 5 m. north-south by 6.10 m. east-west. The floor was of clay laid over a fill beneath, consisting largely of crumbled sun-dried brick, no doubt from the upper walls of the earlier building. No post-holes were found in this floor, and no specific indications about the roofing exist, though the walls were evidently thick enough to support a heavy roof of wooden beams, reeds, and clay. This roof was again probably open at the center, for the new hearth, which lay actually slightly to the east of center, must have had an outlet for its smoke. This hearth appeared in the floor as a smooth, hard, almost polished surface of clay burned nearly to the consistency of pottery. The burned clay layer was about 2 cm. in thickness and bedded on a thick layer of small polychrome pebbles, roughly circular and 2.00 to 2.50 m. in diameter (pl. 2, fig. 8). The bedding for the new hearth was laid right over the floor of the original building, but slightly to the north of the earlier fire-place. In the absence of evidence one assumes entrances to the second building at southwest and east, as in the first.

On the floor to the south of the hearth and embedded in the clay surface was found an ivory stamp-seal in the shape of an owl (pl. 2, fig. 9). The little bird sits up on its feet and tail on a base carved beneath with six figures of animals. The rows of feathers on wings and back are indicated by series of delicate parallel notches. A groove around the neck suggests a collar in some other material, now lost, perhaps with a ring by which the seal could have been suspended. The face is broken and the break ancient; and this break may have been the reason for which the seal was discarded in ancient times. The little owl can be dated to approximately 525 B.C., and his presence in the floor of the second Hearth Building suggests a date slightly later—per-

haps toward the end of the sixth century—for its reconstruction.

The third period of the building is represented by a new floor of egg-size pebbles over a filling of clay laid on the earlier level to a thickness of about 70 cm. In the center, traces of burning were plentiful, but the shape of the hearth could not be made out. It is possible that a stone coping similar to that of the fourth fire-place was used; fragments of a gray stone coping, profiled and evidently circular, were found built into the drain just to the north in places where it had been repaired, and two more occurred in the debris on top of the pebble floor. Some of these fragments show traces of burning, and it is tempting to reconstruct from them a circular stone coping for the third period of the hearth.

In the same phase the area to the east of the building was paved with irregularly shaped stone slabs at the same level as the pebble floor within, and bedded on the same yellow clay fill as was used to raise the floor level inside the building. This raising of the outside ground level to the east at the same time that the floor level inside was raised may be an additional indication of a door at the east side of the building.

The latest rebuilding of the enclosure involved a considerable enlargement; the north and west walls have not yet been found, and probably lie outside the limits of our trench. The foundations of the south and east walls are preserved. The south limit was fixed by the north wall of the Gate Building, but to the east expansion was possible and a terrace, or perhaps a porch or pronaos, was added. In any case, a foundation was laid parallel to the east wall and 1.80 m. from it, making a long, narrow room all along the east side of the hearth room proper, which must have been connected with it by a door. The east vestibule and the hearth room were both paved with flat, irregular stones bedded on clay. The hearth itself, laid over the older fire-place, was enclosed by a rectangular coping of hard, red stone measuring 2.25 by 2.15 m. in its outer dimensions (pl. 3, fig. 10). This coping is made of two very heavy pieces of stone joined at the middle of the north and south sides. The joints were reinforced with bands of iron of which fragments were found still in place, and from which the rust had stained the stone to either side of the joints. The coping had been laid on a stone foundation on three sides and on a heavy wooden beam on the fourth (south side). Within the stone rim was found a thick

deposit of burned earth and ashes, and the stone itself was heavily burned on top. This latest hearth with its stone coping resembles a number of archaic Greek fire-places (*εσχαράται*) in small temples; the most striking parallel is the hearth in the small sanctuary of Herakles in Thasos.⁸

The debris over the floor of the latest Hearth Building was made of fallen crude brick, reeds, white plaster, and a large number of fragments of pithoi. The brick undoubtedly came from the walls of the building itself, the reeds and plaster from its roof. The fragments of pithoi may have come from a storeroom within the enlarged latest building, perhaps in the area north of the hearth room, as most of the fragments were found at the north side of our trench.

The position of this small building just inside the main gate of the city; the persistence in the same place of its central feature, the hearth, through several successive phases; and the monumentality of the latest fire-place with its heavy stone coping, all suggest that we have to do with a public building and not a private kitchen. In its earliest phase the building was evidently planned as a part of the gate project; the small building was a single unit, the hearth its central feature, and without any living quarters attached to it. These indications make it seem likely that our building was a shrine and that the fire-place was of a sacred nature. The ivory seal found in the second floor may be a sample of the more precious original contents of the building—perhaps a votive. The cult seems to have been centered upon the fire-place, and was perhaps a fire cult—not inappropriate as an importation at the time of the beginning of the Persian occupation.⁹

The little building seems to have been damaged late in the fifth century, and destroyed and abandoned in the fourth. Elsewhere on the mound there are indications of a catastrophe in the latter part of the fifth century, when Building A was destroyed and replaced by a smaller structure, and when extensive repairs were made on the Gate Building. This destruction may well have been the result of a natural cause such as an earthquake; indeed, there

are no records of any devastation of war during the time of the Persian Empire until the coming of Alexander.¹⁰ The latest rebuilding of the shrine was perhaps made necessary by this late fifth century catastrophe and dates from around 425-400 B.C. Still later, the latest building was itself partly covered by the cellar of a private house, in which was found a group of vases. The most identifiable of these was a late lydion of squat shape on a high spindling base—a type which is often found at Gordion in levels as late as the fourth century.¹¹ While we might hesitate to date this decadent lydion as late as after 333 B.C., the logical time for the destruction of the sanctuary and the abandonment of the fire cult which it sheltered would seem to be the coming of Alexander, and the lydion and other pottery belonged to a house which occupied the site of the shrine after its destruction.

The second building of the time of the Persian Empire (Building C) lies about 20 m. to the west of the south wing of the Persian Gate. It, too, was evidently a part of the same program: the uppermost clay layer below the ground-level of the gate lay against the outer face of the foundation for its east wall, so that its construction would seem to have been begun after the gate had been completed, but before the final grading to the west of it had been done. Building C should therefore date from the same time in the latter part of the sixth century. Somewhat more monumental in size and construction than the Hearth Building, it was made with heavy foundations and lower walls of cut stone blocks; presumably the superstructure was of sun-dried brick. In plan it is like the building uncovered in 1950-1951 (fig. 3), consisting of an inner room or cella and an outer vestibule or pronaos (plan, fig. 11), but with orientation toward the northeast instead of northwest. In its later phase it had a court or terrace in front, somewhat greater in width than the building. Several blocks of the enclosure wall of this terrace were found still in place, laid in a single line and without deeper foundations beneath. The building and its terrace must have fronted on a street running northwestward from the open square within the gate.

⁸ M. Launey, *Études thasiennes I, Le Sanctuaire et le culte d'Heraklès à Thasos*, pl. VI, 2, pp. 172ff., with a list of "megara" with central hearth, mostly dated in the eighth and seventh centuries B.C.

⁹ Strabo (15. 3. 15) speaks of Persian enclosures in which the Magi worshiped an ever-burning fire for an hour each day.

¹⁰ Agesilaus with his army reached Gordion in 395 B.C. and laid siege to it; but after six days he withdrew without

capturing the city: cf. *Hellenica Oxyrhynchia*, XVI, 6. At the beginning of the fourth century the city was evidently intact and in a state to withstand a siege.

¹¹ On lydions see A. Rumpf in *AM* 45 (1920) 163ff. He demonstrates the continuance of the form in the fifth century; but up to the present none have been dated as late as the fourth.

The new foundations were laid on a bed of rubble thrown over the old and in their trenches; on the rubble were placed series of wooden logs about 20 cm. in diameter set parallel to each other and about 20 cm. apart, crosswise to the direction of the wall as in the foundations for the second Hearth Building (pl. 2, fig. 7 and pl. 3, 14). The foundations and lower walls, laid on this beam bedding, are of cut blocks; but whereas the material used in the earlier building was homogeneous (limestone) that of the later is mixed, including red and gray basalt. Evidently various sources in addition to the first Building C were used for building blocks. The upper walls were again probably of sun-dried brick. At the time of this reconstruction the floor level was raised by throwing in a layer of clean clay, and the terrace at the front was added. The blocks of its retaining wall were laid on top of the earlier ground level to the north of the first building, and the clay fill thrown behind them; the single course found still in place was thus a foundation course for an enclosure or terrace wall above.

The second period of Building C amounted to an almost complete rebuilding. We found no significant sherds in the clay filling under the second floor or in the wall trenches which might have served to date this reconstruction. The similarity of the log foundation bedding to that of the second Hearth Building, which we have seen reason to date around 500 B.C., suggests that the two structures cannot have been very far apart in date. Evidence from the "annex" of Building C at the west (see below) suggests a similar date. Although the building had been badly plundered in Hellenistic times and its walls remained above their own ground level in only two places, evidence was discernible for still a third phase, in which the floor had again been raised by spreading yet another layer of clay. This may have been contemporaneous with the third Hearth Building—late fifth century; the drastic spoliation of the foundations has destroyed all evidence for more extensive repairs or rebuilding to go with this third floor. Late disturbances had also obliterated any trace of the successors to the fire-place of the first building, though doubtless such must have existed. One of the earliest pits dug into Building C after its final abandonment contained the animal-headed rhyton described above (pl. 1, fig. 5) and also a lydion with spindly base similar to the one found in the house over the Hearth Building. However one may date these lydions, their presence in these two places indicates a closely sim-

ilar date for the abandonment and destruction of Building C and the Hearth Building.

Building C, facing on the open square inside the Persian Gate and evidently a part of the same building program as the gate itself, must also have been a public building. Its size, the careful construction of its foundations and lower walls with heavy blocks of cut stone, its rebuilding on an even larger scale, and the hearth or fire-place in its cella (which must have been a feature at all periods), together preclude the interpretation as a private dwelling. To the classical archaeologist its plan of cella and pronaos suggests a small temple, and its position just inside the gate would not be inappropriate. The hearth, too, like that of the building north of the gate, suggests some sort of a cult place. But this plan, duplicated in the building to the north (plan, fig. 3) may have been a common one and does not necessarily indicate a temple in Phrygia under the Persian Empire. No inscriptions or other objects to indicate the use or purpose of the structure were found, and for the present it had best keep its non-committal appellation of Building C.

Just to the west of the building and at the very edge of our trench we uncovered a small part of another structure which we called the annex of Building C. Stone robbers in Hellenistic times had pilfered all the blocks of its east wall and most of those of the westward return at its north end, to below floor level. Part of the south wall, of small stones in clay mortar, was still preserved in place, as we shall see. The floor itself and the deposit over it were left undisturbed by the plunderers, who evidently were mining for blocks and therefore merely following the old walls as they found them. The east wall of the annex lay parallel to and close against the west wall of the second Building C, and the indications are that the annex wall was the later because it was much more shallowly founded and could derive support from the already standing wall of Building C; had Building C been built when the annex was already standing, there would have been serious danger of undermining the annex when the deep new foundation trench was dug close beside it. In any case, the two structures existed at the same time. Perhaps the name annex is a misnomer, in that a party wall would have been more suitable between two parts of the same complex than a double wall.

A small, wedge-shaped section of the annex was cleared, giving the east edge of a room about 3 m. in length. This would appear to have been a corner

room, as the outside foundations to east and north were heavy, while the lighter wall of stones in clay at the south was probably an interior partition. The area uncovered was thus about 3 m. in length, a little more than a meter in width at the north, and about half a meter at the south. The room had been floored with a gray composition probably containing ash, and hard at the surface. This floor was covered to a depth of about 40 cm. by a mass of fragments of fallen plaster (pl. 4, fig. 15) and, on top of this, an occasional broken roof tile. Examination of the plaster fragments quickly showed that some bore painting; evidently the walls of the room had been painted, and the plaster lay over the floor in broken bits as it had fallen. The tedious business of gathering up the fragments from this small area took an entire month. The mass was divided into squares, and every fragment kept with the others from the same square; we soon began to run out of containers in which to keep the pieces, but by this method it was hoped that joins between pieces broken in falling could more easily be found, and control kept of the provenience of each piece. Matters were further complicated by the discovery that a number of fragments were painted on both sides; and this was best explained by assuming that the room had undergone a redecoration in which a new layer of plaster was laid over the old, and a new set of wall-paintings was made. In peeling or falling, the outer layer carried with it some of the paint from the surface of the earlier layer beneath. This indicates that the technique used was not fresco but painting on a dry surface; and actually the somewhat powdery colors do not go into the plaster but lie on its surface, on which they leave very little trace in the places where they have been rubbed or scraped off. The fragments themselves seem to bear out the hypothesis of redecoration and painting in two layers: on some (from the outer layer, presumably) the colors are much fresher and brighter than on others. Moreover, some fragments (as pl. 4, fig. 16) might be assigned to a later repainting by the drawing; the eye is properly rendered in side view, whereas in most of the other pieces the eye is still drawn in full front with a profile head (compare pl. 5, fig. 20). A procession of figures wearing long cloaks over crinkly undergarments (pl. 4, fig. 17) was probably part of a continuous frieze. The colors of the garments—red, blue, and green—are bright and fresh, and the undergarments were evidently covered with a thin wash of color which allowed the line-drawing of the

folds to appear through it. These figures are larger in scale than any others recovered. The scale, the frieze composition, and the freshness of the colors suggest that it belonged to the later redecoration of the room.

The earlier seems to have been done in panels rather than friezes. Most of one such panel—somewhat greater in length than in height—remains in place against the south wall of the room (pl. 4, fig. 18). It is a dado panel above the floor, and undecorated. Some of the painted fragments, however, could be joined to give three edges of a similar panel with a raised border (pl. 5, fig. 19). In this we have parts of two figures: at the lower right a boy with arm raised, evidently in the act of throwing; and at the left the head and shoulders of another boy (also fig. 20). There are fragments of several similar figures; one has been added at the lower left, a boy in bright blue trunks with a red dot over the hip-bone, in a position suggesting that he is about to do a back somersault. Another boy, similarly clad in blue trunks, is evidently running. Another fragment preserves the head of a man playing the double flute, on a somewhat larger scale than that of the boys. It is tempting to combine all these fragments into a gymnasium scene in which the boys are carrying out various exercises to the music of the master. The drawing is archaic and clearly under the influence of East Greek painting; the heads (pl. 5, fig. 20) find plentiful parallels in East Greek (and especially Caeretan) vases, and should probably be dated around 500 B.C. The painting itself is thus under the influence of Greek painting in style; if it were possible to restore any complete scenes we might be able to trace the influences in the subjects—whether Greek, Persian, or local Phrygian. A gymnasium scene could well be Greek; but other more enigmatic fragments of many and varied subjects were also found—the forepaw of a lion or sphinx, griffin's heads (pl. 5, fig. 21; a whole forest of them on another fragment), and birds and flowers, perhaps representing the embroidery on garments.

Fragmentary though they are, these bits of painted plaster are original documents of wall-painting at the end of the sixth century and of the first half of the fifth. As such they may add something to our scanty knowledge of monumental painting in the archaic period, and perhaps enlighten us on the cross-influences in central Anatolia during the first century of the Persian Empire. Thus far, only a small part of the fallen plaster

deposit has been cleared, and much may remain to be found. The south wall, built of small stones beneath the notice of the later stone-miners, is promising, and may be standing to greater height farther to the west. The clearing of the rest of the annex must be a first priority for the next campaign at Gordion.

Like Building C and the Hearth Building the annex seems to have gone early out of use. It was covered by a bronze-working foundry in which we found slag and fragments of clay crucibles; part of the stone socle wall of this may be seen above the fallen plaster deposit in fig. 15. As the same foundry covered also the northwest corner of Building C, the two structures, building and annex, must have gone out of use at about the same time in the fourth century—presumably on the coming of Alexander's army.

Among the debris created by the same event may perhaps be reckoned the second sizable Phrygian inscription recovered at Gordion, which was found built into the wall of a late drain or water-channel, to the west of the Persian Gate. The inscription is on the upper face of a roughly squared block of brown poros-like stone which is evidently complete, though the right side is badly battered and worn, especially at the upper and front edges. Three of the vertical faces are rough finished, while the fourth is smooth. This difference in finish may indicate that the block was once fitted against another, below the inscription, and formed part of a complex of blocks. The upper face, which bears the inscription, is also rough finished (pl. 5, fig. 22). At the right side of this face are the deeply incised outlines of a pair of somewhat pointed shoes (length of left print 28 cm.). Although the surface within the outlines is smooth finished, there is no sinking, and these outlines are definitely not beddings for the feet of a bronze statue. Their interpretation is not clear; but in any case it seems quite certain that no statue ever stood on this block as a base. At the left side there is a rectangular area which has been left uninscribed; the surface is not only rough finished but has become badly pitted and corroded, so that it is difficult to tell whether certain holes in the stone were made to fasten some object on the stone in place, or whether they are the result of time and wear. The way in which the lettering avoids this area of the block suggests that something may have been resting on the surface of this part of the stone when the inscription was cut. The lettering lies in a band cut into the sur-

face to a depth of about 3 mm., and finished smooth at the bottom. It is in two parts, of which the longer starts at the upper left corner and runs to the right, then turns down to avoid the left footprint, running almost to the edge of the stone, where it again turns to run upward between the two foot outlines. The second part begins at the lower left and runs to the right, then turns upward to avoid the first. Obviously the footprints were already in the stone when the inscription was cut, and most probably there was an object standing on the left side of the stone. The longer part of the inscription was cut first, avoiding the already-existing obstacles on the stone; then the shorter part. Both parts of the document are to be read from left to right. It is complete except for a few letters missing behind the heel of the left footprint, although the tops of some of the letters along the upper edge have been abraded away. In three places triple dots are probably to be taken as punctuation separating words, though the absence of such punctuation elsewhere does not necessarily mean that there are no other word divisions. The letters vary in height from 8 cm. to 1.5 cm.; since they all fit into a normal archaic alphabet, without exotics, they may be transliterated into Greek capitals as follows:

ΑΓΑΡΙΙΟΙ : ΙΚΤΕΣ : ΔΔΟΙΚΦΟΙ ·· ΙΟΣΟΠΟΡΟ
ΚΙΤΙΣΙ ΚΑΚΟΙΟΙΤΟΦΟ : ΠΟΔΑΣΚΑΙ

As the second letter does not recur, it is not certain whether it should be interpreted as a *gamma* or a *lambda*. The fifth and sixth letters lack their tops, but as long straight vertical bars remain they can have been only *iotas* or *taus*, probably one of each, though in what order there is no way of knowing. The downward-slanting cross bars of the *alphas*, the long downward tail of the vertical of the *epsilon*, the three-barred *sigmas*, the numerous *vaus* or *digammas*, and the way in which in some cases the slanting bars of the *kappas* do not meet at the same place on the verticals, together give an archaic flavor to this inscription. The circumstances of its finding give no clue to its date, though it must belong to the sixth century. It would be interesting to know whether it is of the Persian period at Gordion, or pre-Persian; the fact that the language is Phrygian is not decisive, since that language must have been prevalent locally even after the occupation. As to interpretation, one might merely hazard a guess that the short second part may call down an imprecation of some sort on the heads of evil-doers—that is, presumably, on anyone

doing harm to the inscription or to the object which rested on the block.

The area immediately to the west of the Persian Gate was unencumbered by buildings, and here we planned to cut deep in order to find and sample the Phrygian level below. In clearing the south court of the Persian Gate in 1952, in order to locate the inner face of the city wall and hence to establish the depth of the court from west to east, we became aware of a stretch of north-south wall, four meters thick, which underlay the sixth century building and which could be interpreted only as a part of an earlier fortification wall of the city. We cleared the outer face of this wall to a depth of about four meters at that time (pl. 6, fig. 23). It is built of brownish-gray limestone, not very hard, in roughly shaped blocks with characteristic tooling, probably made by the chisel, on their exposed faces. The blocks are laid in irregularly horizontal courses; the joints are not tight, and in many places the spaces between blocks—especially at the corners—are chinked with small splinters of the same stone. The space between the two built faces, inner and outer, is occupied by a filling of stone rubble. This wall stands firm along the southeast side of the mound, without any trace of the tendency so noticeable in the Persian buildings above it to slide downward with the slope; in fact, it seems to have served as a dam and a firm foundation against sliding and settling, so that the Persian buildings above are relatively well preserved over and inside its line, while outside they have suffered badly from the downward sliding of the fill under them at the edge of the mound. The earlier fortification wall could be traced from just north of Building A right across the Persian Gate Building to the northern limit of our trench. Its traces were especially clear in the south half of the paved inner court of the gate, where the pavement broke on the line of its outer face, lying firm and even over and to the west of it, but sloping downward as the result of settling to the east. As this break in the pavement extended over only half the width of the court, we surmised a return or an opening—perhaps a gateway—in the wall beneath. Accordingly, we took up some of the paving and laid bare the top of the earlier wall beneath (pl. 6, fig. 24). It was now possible to see that the outer face of the Phrygian wall, running roughly northeast to southwest, at this point turns back at an acute angle to run west. But since we knew that the northeastward run was continued farther on under the wall between the north court

of the Persian Gate and its portico, this return, as it seemed, could be only one thing—the south jamb or reveal of a gateway through the earlier city wall, directly beneath the opening of the Persian Gate. Our cut to the west of the Persian building, moreover, had by this time been carried deep enough to lay bare a section of a very heavy wall of the same material and construction as the Phrygian city wall, and with the same orientation as the reveal of the gateway—clearly its continuation, and indicating that the Phrygian Gate extended considerably inside the inner façade of the Persian. It became obvious, in fact, that the earlier gate building was as extensive as the later, or more so, but also better built, and probably much better preserved. The cut made in 1952 against the outer face of the Phrygian city wall had shown it to be standing to a height of at least four meters and possibly six; and a like depth could be foreseen for the gateway through it. The only possible way of clearing it, and the only feasible way of getting out the deep fill to the west of the Persian Gate, was to make a deep cut in which we could bring the railroad through to the west. This could be done by sacrificing the south half of the paved Persian court, and this it was decided to do, as far as possible preserving the north side of the court. A railroad cut was accordingly laid out entering the paved inner court of the Persian Gate through the doorway between it and the outer court, and thereafter keeping as much as possible to the south where the poorly preserved foundations of the south wall of the court rest firmly on top of the Phrygian walls. The north side of the paved court was to remain untouched; and in this way only the south half of the paving, and an opening through the west foundation, would have to be sacrificed (fig. 1, *supra*). The level set for the railroad track was four meters below the floor level of the paved court—as it turned out, a sad miscalculation.

On taking up the paving slabs of the Persian court we found them to be bedded on a filling of stone rubble interspersed with large building blocks of the Phrygian Gate, unmistakable because of the characteristic material and tooling. In the cracks between the paving stones we found scores of bronze arrow points. These were of three types: three-flanged, flat and leaf-shaped with central spine, and flat-triangular, with a barb at one side. A fair number of similar arrow points had been found overlying the floor in 1951; and these latter may well have been expended in the final battle in which

the gate was defended against an attacker—possibly Alexander in 333 B.C. In the west foundation of the court and in the foundation under the east doorway were many reused blocks of the earlier building; in fact, the large numbers of these blocks either reused in the foundation or thrown in with the rubble as filling in the opening of the gateway, indicate that the Phrygian Gate Building was standing even higher than it does at present, and that its upper courses were leveled down by the Persian builders to a level predetermined by them for their own building. One of the more interesting of these blocks, found built into the west foundation of the paved court, proved when it was turned over to have, scratched on its lower face, a design for a game which is played in Anatolia to this day (pl. 6, fig. 25). The board consists of three concentric squares connected at the middle of each side by a cross line. Each player has nine stones (hence the modern Turkish name of dokuz taş) which they put down alternately, and then move, from the corners where lines meet. The objective is to get three stones in a row. In English the game is called mill. The workmen on the dig frequently play it (or a simplified version with only two concentric squares and three stones to each side) during the lunch hour, and it is amusing to see it carried back to the sixth century B.C. when no doubt two of the workmen engaged in building the Persian Gate whiled away their own lunch hour in playing it, using as their board a block taken from the old Phrygian Gate, before it was built into the foundations of the Persian.

Under the Persian Gate the filling was entirely of blocks and stone rubble. From the hundreds of cubic meters of this fill taken out we got only a handful of sherds. One of these, however, was a fragment of a lydion, to be dated probably at about the middle of the sixth century; and this gives us a bit more evidence that the building belonged to the time of the Persian Empire and not earlier. To the west of the building proper the filling was of clay at the surface, rubble beneath. The rubble extended as far to the west as the western limit of the

Phrygian Gate. At that point, and on a line roughly parallel to that of the Persian building, the rubble was held back by a wall built entirely of blocks reused from the old Phrygian Gate, made with a good face toward the west and a rough face to the east (plan, fig. 26; also pl. 7, fig. 30 and pl. 9, fig. 34). We called this the "dam wall"; its function was obviously to prevent the rubble filling under the Persian Gate from sliding down toward the west. It extends right across the Phrygian Gateway proper, and also across its north court; the wall between these parts of the Phrygian building had in large part been taken down to supply material for the dam wall. The rubble stopped at its line; to the west of it the filling was all of clay which had been brought from elsewhere to raise the level of the entire mound.¹² For purposes of dating the sherds from this layer of clay are of little use; they are almost entirely Hittite, with occasional Early Bronze Age fragments among them—clearly a deposit already in the clay when it was brought from elsewhere to be laid down over the surface of the city mound. The presence of the dam wall with its good face toward the west and rough back, dividing the clay fill from the rubble bedding beneath the Persian Gate suggests that the building was put up before the deep clay deposit was laid down to the west of it—a procedure evidently highly extravagant of labor if the clay was brought in from the east, since it would have been necessary to carry it up over the Persian Gate before it could be dumped over the mound at the west. Neither the Persians nor the Phrygians, however, seem to have taken any account of labor; the supply must have been plentiful and cheap.

The Phrygian Gate Building consists of a central opening or gateway proper, and a large courtyard at either side. The two courts, north and south, are not connected by doorways with the central passage between them. Like the two side courts of the Persian Gate, they were backed against the inner face of the city wall and opened directly toward the city at the west. In this and in general plan the similarity between the buildings of Phrygi-

¹² The clay layer is about 4 m. thick beneath the temple-like building in our deep sondage, lying between it and the Phrygian building below it. Building A, as well as the Persian Gate, is known to lie on a deep clay filling. The clay layer, varying from 2.50 to 4.00 m. in thickness, has been spotted in other tests at various places on the mound. The Koertes in 1900 came on this layer in both their trenches on the city mound; in their cut at the south they took it for virgin soil and dug no deeper: Koerte, *Gordion*, 147 and 152. The laying of this enormous mass of clay over the en-

tire surface of the mound may have been done in order to make an important strategic post more defensible, and at the same time to provide a more secure bedding for the buildings of the Persian city over the earlier artificial accumulation of earth which was probably very soft in many places. The laying of the clay over the city mound must have been closely contemporary with the building of the clay tumulus over the smaller habitation mound to the southeast; cf. *Archaeology* 6, no. 3 (1953) 159ff.

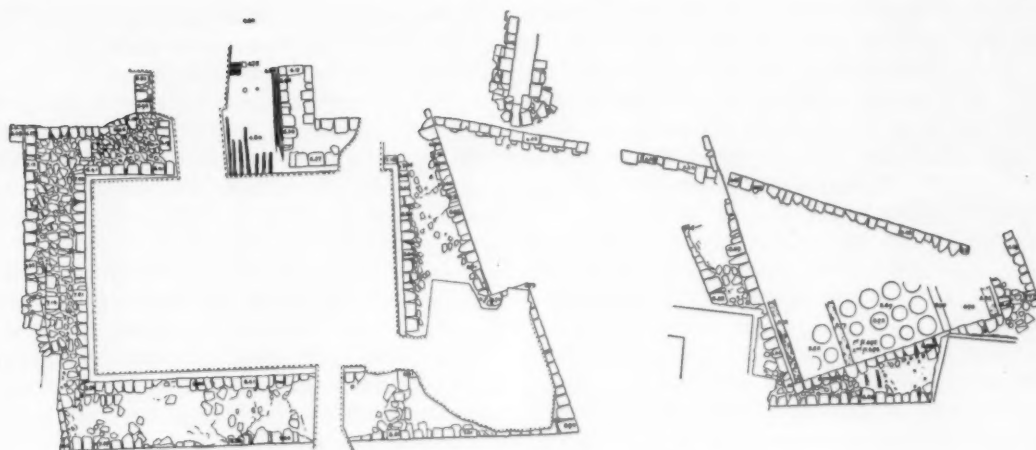


FIG. 26. Plan of Phrygian gate: actual State

an and Persian times is striking, and the former may have served as a model for the latter (compare the plans, figs. 1 and 26-27). In the Phrygian building, however, the opening runs through obliquely. The south court takes its orientation from the city wall, and the internal wall separating it from the gateway is therefore wedge-shaped, thin at the west, very thick at the east. The north court, on the other hand, takes its orientation from the oblique opening of the gateway, and as a result its east wall is also wedge-shaped, thin at the south, thick at the north; in fact, this wall (which was also a part of the city wall) is little more than a meter thick at its south end (pl. 7, fig. 28). Where the walls are not wedge-shaped their average thickness is about 4 m., like that of the city wall itself, which has already been described. These walls are built with a sharp batter on their outer face. The walls at

either side of the gateway opening are also battered, but the slope is nearer to the vertical than that of the outside wall-face. The inside faces of the walls in the north court are vertical. In their batter as well as their masonry construction the walls of the Phrygian Gate at Gordion find their closest parallel in the wall of the sixth city at Troy,¹⁸ though we noted at Gordion none of the set-backs characteristic in the walls of Troy VI. Though separated in time by five hundred years or thereabouts the two fortifications may well represent a common tradition of construction in northwestern Anatolia; if so, intermediate examples have yet to be found.

The masonry of the gate building at Gordion was concealed by a layer of clay or mud stucco, brown in color and rather soft (cf. pl. 7, fig. 29

¹⁸ C. W. Blegen *et al.*, *Troy III*, 2, pls. 5-30.

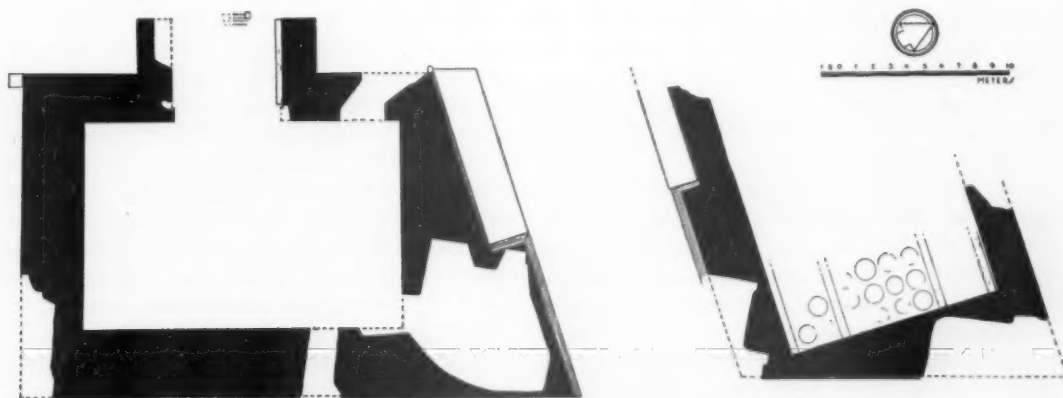


FIG. 27. Phrygian Gate Building: restored Plan

and pl. 8, fig. 32). None of this has been observed in the few places where the outer face of the city wall has been cleaned; this lack, and the soft nature of the coating, suggest that the central gateway and its courts to north and south may have been roofed, for such stucco would not stand up to the weather for long. For the south court and the central opening we have as yet no evidence; but there are indications to suggest that the north court was at one time roofed. Perhaps it would be best to look in turn at each section of the Phrygian Gate Building.

The north court (pl. 7, figs. 29-30), laid out on the orientation of the central opening, has a north-south length of 12.50 m.; its full east-west width has not yet been determined. Its walls stand to a height of about 5 m. above its earliest floor level. The room was almost entirely filled with the rubble and building blocks thrown in by the Persian constructors of the later building, but beneath this heavy filling we cleared two different layers and two floors belonging to the room itself. This stratification may be seen in fig. 29, where a dark layer overlying a lighter one is visible beneath the Persian rubble. The darker layer would seem to be an accumulation of fill formed while the building was lying abandoned or out of use; it lay like drifted snow over the upper floor, thick against the walls, thinner toward the center of the room. Unfortunately this layer yielded no sherds of significance for dating. It overlay a hard earth floor which was the second floor in the room, overlying a layer of lighter earth about 40 cm. thick which had been thrown over the first and original floor. From this layer, and actually lying on the earlier floor, we recovered a jug of black polished local ware (pl. 8, fig. 31) which, though of typical Phrygian fabric, cannot be closely dated—all we can say is that its shape is earlier and less developed than that of similar jugs found in mid-sixth century context in the tumuli, and that it should date the laying of the upper floor in the north court in the seventh century or earlier.

The wall stucco goes down to the level of the earlier floor. Here we found evidence that the room had been divided into three by two parallel cross walls running east-west and making a slightly wider central "nave" between narrower side rooms. The partition walls were of sun-dried brick laid on large wooden beams which were themselves bedded on small stone rubble below floor level. The line of these beams may be seen in fig. 29 just below the

foot of the ladder; the rubble bedding is covered by a smooth layer of clay on which the imprint of the graining of the wood could be discerned, and at the left a hole in the fill was left after the decay of the wood. The second wall lay to the left of the workmen, where the rubble bedding which carried it may be seen. Similar beddings of rubble and beams run along the faces of the north and south walls. These may have carried benches along the two walls; if, however, they carried internal walls of sun-dried brick like the two central foundations, then these walls must have been later additions, since the wall stucco on the masonry at north and south goes down to the level of the beam foundations immediately in front. The two central walls, if carried to the full height of the masonry walls, would have been sufficient to support a roof; the room, measuring 12.50 m. by at least as much and probably more, can hardly have been roofed without internal support. It is quite possible, however, that the foundations along the north and south walls also carried walls of sun-dried brick to a certain height, and that the whole area was divided by a floor carried on these four brick walls, and consisted of a basement and an upper room (or rooms, if the brick walls were carried higher). If that were the case, the entire internal structure, completely independent of the masonry walls of the Gate Building, must have been an alteration, erected inside the north court after the building had been completed and its walls covered with stucco.

The first floor of the court is of crushed white stone and clay, over a bedding of small stone. It is marked (as far as it has been uncovered) by three rows of circular patches of pink clay of varying diameter. These are evidently patches put in the floor after the removal of rows of large pithoi or storage jars which had been set into circular hollows scooped in the surface of the floor so that the vessels would stand upright. Thus the area was at one time divided into three sections and used as a storeroom with rows of storage jars set into the floor in each of three sections; probably this was the time when it became a basement room. No fragments of the jars were found; the careful patching with clay of the pits in which they had stood suggests that they were taken elsewhere and the rooms they had occupied then put to other uses.

The central passageway of the building is about 8.90 m. wide and 20.40 m. deep. At a distance of 9.90 m. from its outer entrance the walls jog back, at the south side to a depth of about 2.50 m., at the

north, where the wall is thinner, to 1.90 m. The increased width of the inner part of the passageway is only apparent, however, for the line of the outer part of the wall is continued inward, leaving a ledge up to 1 m. in height at either side of the gateway (plan, figs. 26-27, and figs. 32 and 34). The roadway through the middle thus had a constant width of about 8.90 m. It was paved with a cobbling of large pebbles, and sloped upward from east to west. The pavement of the road now lies about 8 m. below the preserved top of the wall at its jog on the south side (pl. 8, fig. 32).

Because of our miscalculation in making the railroad cut to a depth of only 4 m. below the level of the Persian Gate, we were able to clear only a small area of the south side of the inner part of the gateway to bottom. Along the north side an enormous mass of rubble had been left, both to carry the railroad and to support the better preserved north side of the inner court of the Persian building (pl. 8, fig. 33). The Phrygian Gate is now seen to be on so monumental a scale, and so well preserved, that in the next campaign it will be justifiable to remove the north side of the Persian Gate and so possible to clear the entire passageway of the Phrygian Gate. In the meantime we are able to surmise the plan of the earlier building (fig. 27), though there still remain problems which only more excavation can solve. We have found, for example, no trace of a cross-wall in which were actual doorways which could be closed; such a cross-wall would presumably have been bonded into the masonry of the side walls of the passage at both ends; but the walls run solidly at both sides, without any interruption. At the west, the south wall of the gateway turned south to form the west wall of the south court. At the point where it presently ends it has been tampered with and there is no good corner; a westward continuation may have been taken down by the Persian builders, and the cross-wall with the doorway may have been still farther toward the west. Somewhat enigmatic, too, at the present stage is a rectangular pit lined with masonry (pl. 9, fig. 34) which lies just to the north of this end of the south wall. Its orientation is not that of the gateway, though its long axis may lie nearly perpendicular to the line of the Phrygian city wall. Its level is somewhat higher than that of the paving of the street, and it is therefore questionable whether it belongs to the Phrygian Gate or to a later structure. The stones of which it is built, the tooling on their faces, and the type of masonry, are all the same

as in the Phrygian Gate, and this built pit was filled by the Persians with the same rubble filling they used elsewhere in the Phrygian building.

The stratification in the central passageway was similar to that in the north court indicating a period of semi-abandonment or neglect before the advent of the Persians during which an accumulation of earth had drifted in, deep along the side walls and in the corners, shallower over the roadway toward the center. In fig. 32 the stucco in the angle of the jog in the south wall shows the high level to which fill had accumulated before the Persian rubble was thrown in; the Persian "dam wall" was laid on top of the fill already accumulated, thick at the sides, thinner toward the middle (fig. 34). No significant sherds were found in this accumulation.

The south court is a large rectangular area measuring 19 m. in length inside from north to south by 11.90 m. from east to west. Its east wall is the city wall; its west wall, pierced by a wide central doorway, is the southward return of the wedge-shaped wall between it and the central passageway. The west doorway is framed at either side by westward returns of the west wall (pl. 9, fig. 35), which make the reveals beside the passage 6 m. in length. The door itself apparently lay at the inner end of this deep doorway, where a series of parallel wooden beams probably served to support the threshold, which is missing. Beyond defining the limits of the south court, almost no excavation was done in it. A large part of its area is occupied by the well preserved south wall of the Persian Gate, and wherever we probed below the Persian ground level we found only the top of the massive filling of stone rubble thrown in as a bedding. The clearing of the south court does not seem worth while, at least for the present. As the area of the room is too great to have been roofed without internal supports, one is inclined to the belief that the southern section of the Phrygian Gate Building was a court open to the sky.

Thus far the evidence proves only that this building was considerably earlier than the time of the Persian Empire. Since, however, it is on a scale even larger than that of the Persian Gate, with a total north-south length of more than 60 m. and an east-west width of at least 19.50 m., and since it was constructed entirely of dressed stone without crude brick, it obviously must date from a period of great prosperity and power. On historical grounds it should be assigned to the time of the greatest

expansion of the Phrygian Kingdom. We know from Assyrian records¹⁴ that King Mita of Mushki (presumably King Midas of Phrygia) was defeated in 715 B.C. by Sargon II. He was called in to help the king of Carchemish, who was in revolt; his defeat seems to have taken place near the Taurus Mountains. The Phrygian Kingdom was thus at the apex of its power toward the end of the eighth century, when it apparently extended as far to the southeast as the Taurus and was in contact with Assyria. This period of power was undoubtedly the time of the adornment and fortification of its capital city. It would thus seem safe on historical grounds to assume a date in the eighth century B.C. (or earlier) for the building of the Phrygian city wall and gate.

If v. are correct in assuming that the Phrygian fortifications were built between 750 and 700 B.C., and the Persian between 546 and 525 B.C., there remains a gap of about two hundred years. During this time, at the beginning of the seventh century, the Phrygian Kingdom was destroyed, according to the tradition, by the Cimmerian invasions of Asia Minor. Thereafter Phrygia became a part of the Lydian Kingdom, of which the eastern limit was the Halys River. The great mass of the filling in the Phrygian Gate at Gordion was an artificial one thrown in by the Persians as bedding for their own building. This filling, as already noted, contained many blocks of the earlier building, and the presence of these suggests that the Phrygian Gate was standing even higher than it does at present when the Persians came and leveled it down to the ground level decided upon for their own work. The filling under the Persian rubble was evidently an accumulation formed during a period of neglect and decay. We must probably assume a decline—there are no traces as yet of an actual sack—of the city early in the seventh century after the coming of the Cimmerians; but the Gate Building seems to have suffered no great damage and to have continued in use. One cannot expect to find much stratified evidence or many objects in a passageway which was kept more or less clear throughout. The intermediate periods of the city must be sought elsewhere than in the gate, and in very few other places on the mound have we reached these depths. Some evidence of intermediate levels has been found to the south and west of the south wing of the Persian Gate, and in other places sherds and objects

have been found which are probably to be assigned to the time between the fall of the Phrygian Kingdom and the coming of the Persians. Of these the best are some fragments of a spouted Phrygian jug found to the east of the Hearth Building (pl. 10, fig. 36). The jug was decorated in geometric style with panels divided by checkerboard pattern and rows of dots; below the rim, a zone of meander. The panels were filled by animals, of which we have parts of three: the head and neck of a lion, and the hind legs of two hoofed animals, probably goats or deer. The drawing is done with a minuteness and precision quite comparable to the best Protocorinthian, though the style suggests Cycladic rather than mainland influences. The shape, however, was a typical Phrygian one, which finds parallels in similar spouted jugs found at Gordion in the Koertes' Tumulus III.¹⁵ This jug, though it may be pre-Cimmerian, is probably to be dated in the seventh century.

The tumuli also give evidence of a continuing prosperity at Gordion during the seventh and early sixth centuries. Of the nineteen tumuli dug up to the present (five by the Koertes, fourteen by the Museum expedition) only three, among them Koertes Tumulus III, may possibly date from before the time of the Cimmerian incursion; the rest range through the seventh century and the first half of the sixth. The offerings placed in the graves were in some cases rich; and the tumuli themselves, mounds containing many tons of heaped-up earth, bespeak wealth and a plentiful supply of labor. This continuing prosperity suggests that though the Cimmerian raids may have been destructive their effect was transitory and the recovery of Gordion would seem to have been rapid and complete.

The grave belonging to a twentieth tumulus was added to the list in 1953. The small tumulus is one of a group of three or four which lie three miles to the west of the site of the city, on the far side of the Sangarios River. The tomb itself was discovered and opened presumably by shepherds. Summoned by the owner of the land, we went to investigate. As is usual at Gordion the grave lay well away from the center of the tumulus, but there could be no doubt that the two belonged together. The grave was a cist made of carefully fitted blocks of creamy limestone, mortised at the corners and covered with three slabs, on top of which there was a construction of wooden beams and clay, per-

¹⁴ J. B. Pritchard, *Ancient Near Eastern Texts*, 284-285.

¹⁵ A. and G. Koertes, *Gordion*, Taf. 2 and 3.

haps to keep water from entering the chamber (pl. 10, fig. 37). It had contained a wooden coffin, painted red, the planks of its sides ending in tongues which were fitted into sockets in the upright corner posts, and fastened in addition with large iron nails. Enough fragments were found of the coffin to allow of its reconstruction on paper. We cannot know what was found and carried off by the tomb-robbers; but they overlooked and left many gold pendants, plaques, and beads—the component parts of a necklace—which we collected by sifting the earth left inside the grave and the dump thrown out by the robbers. The necklace (pl. 10, fig. 38) is of the finest goldsmith's work, with designs of rosettes and palmettes in applied wire filigree, and granulation. Twenty-one pendants, decorated at the top with rosettes, were recovered; also three spherical beads, and two shield-shaped plaques with palmettes and rosettes applied. The recurved leaves of the palmettes suggest a date after the end of the fifth century. The only other objects left by the robbers (apart from two small pieces of gold jewelry which apparently did not belong to the necklace) were fragments of alabaster of the local white stone, and of one of glass decorated with the "feather pattern" which is taken to be typical of the fourth and third centuries B.C.¹⁶ The glass alabastron and the form of the palmettes on the shield-shaped plaques together indicate a dating for the grave in the fourth century. Since the latest of the tumulus graves hitherto dug could be dated around the middle of the sixth century, this dating is of great interest for Gordion, because our new grave gives evidence that the building of tumuli over graves continued into the fourth century, two hundred years later than we had previously thought.

Although no new tumuli were undertaken in 1953, more excavation was done in the common cemetery which extends along the south slope of the spur across the flood-plain of the river to the northeast of the city mound. Our main objective was to define, if possible, the limits of the cemetery of Hittite times, and to determine the direction of its growth. We found it to be confined to the western end of the spur, extending as far to the east as the Tumulus II of the Koertes. Graves of later periods

have been found all mixed together in this area, Phrygian, Lydian, archaic, and Roman; many of the earlier burials were disturbed or destroyed by the later. The burials of Hittite times¹⁷ were most often made in large earthenware pithoi, though in some cases in pits dug in the earth; they are characterized by the contracted position of the skeleton, usually lying on its side. Phrygian, Lydian, and archaic burials were of two sorts: ordinary inhumations in cists, the skeletons usually laid out flat on their backs, and burials of bones after cremation in coarse jars. The Roman burials were inhumations, often in cists lined with crude brick or rubble. The grave offerings were not particularly rich in any of these burials; a number of ordinary vases of all periods were found, and a considerable amount of bronze jewelry—rings, pins, earrings and the like. Two pairs of earrings of gold wire of the archaic period have been found, and a number of seal-rings of gold, silver, or iron, set with carved seals of carnelian, in the Roman graves. Up to the present a total of 204 of these graves have been excavated, many of them empty.¹⁸ The cemeteries of the later Persian Empire and of Hellenistic times have yet to be located.

The activities of the 1953 campaign have given us two new buildings of the time of the Persian Empire, with a glimpse of one of its cults, and an intimation of the standards of elegance of a time when entire rooms were decorated with brightly colored wall paintings. Experience has shown that this Persian city has been badly plundered at subsequent periods; but it is to be hoped that nearer to the center of the mound there will be private houses and buildings of crude brick instead of the trimmed blocks of stone used in the large public buildings of the southeast side, and that these will have offered less temptation to the stone robbers of Hellenistic and later times. The Phrygian city, on the other hand, we know to lie beneath a thick layer of clay, and therefore to have been safe from these late depredations. Whatever depredation and looting was done at the last we may safely blame on the Persians; but it is to be hoped that the Phrygian city may be much better preserved than its successor. We now see its buildings (if the

¹⁶ R. Neuberger, *Glass in Antiquity*, pl. IV, 10 (left) and pl. V, 15.

¹⁷ The Hittite graves will be published in a forthcoming number of the *Museum Monograph* series, by Machteld Mellink.

¹⁸ The skeletal material has been sent for study to Professor Muzafer Şenyürek at the University of Ankara. His work on the skeletons of the Hittite period has been completed

and will appear in a forthcoming number of the *Bulleten* of the Turkish Historical Society (Türk Tarih Kurumu). It is hoped that an effort to coordinate the numbers of his skeletons with those of Miss Mellink's graves will be successful, for the sake of easy cross-reference.

Phrygian city gate is typical) to be better made and on a grander scale than those of the Persian city. It will be interesting to see whether any evidence appears of a sack or destruction by the Cimmerian invaders, whose destructive activities have been much heralded in literature, but of which almost no traces have been found in excavations.

UNIVERSITY MUSEUM
PHILADELPHIA

Unpublished Sculpture in the Robinson Collection*

DAVID M. ROBINSON

PLATES 11-22

IN MY COLLECTION are many pieces of ancient sculpture, which are still unpublished, dating from 2500 B.C. to A.D. 200.

1. An early, Cycladic marble, female idol, from a collection of three such statuettes and five such large heads with a long nose.¹ They come from Amorgos but this almost perfectly preserved specimen (pl. 11, figs. 1a and b) is from Paros. Mr. Charles Morley, of New York, has a good complete specimen and Mr. Borowski, of Toronto, has three complete and several incomplete examples. One, weighing 16.77 grams, from Paros (h. 0.389 m., greatest w. 0.141 m., th. 0.0395 m.) has recently been sold by him to the City Art Museum of St. Louis (pl. 11, fig. 1c). Mine is of the unusual short-legged, but high-shouldered, type, 0.117 m. high, 0.05 m. wide. It is of fine translucent Parian marble such as was used later for the Hermes of Praxiteles and many other statues. It is similar to an earlier schematized idol in the Royal Ontario Museum of Archaeology in Toronto,² 0.186 m. high, likewise from Paros and dating c. 3000 B.C. It is like the type drawn in V. Müller, *Frühe Plastik in Griechenland und Vorderasien* (Augsburg, 1929) 10-11, pl. II, 31 (from Siteia in Crete).³ In the Toronto example the body is indicated in a squarer, rougher and readier fashion. The breasts are rendered as lumps and are farther apart. There is the same long neck but the head is flatter and not tilted back as in my figurine. The eyes and mouth are incised, whereas in mine they were painted and only the nose carved as on the other Mississippis heads. The arms, held across the body, and the legs are marked by incised lines, whereas in mine they are rounded, the right raised higher. The same incised triangle (like the Greek

letter delta) below the arms and between the fat legs occurs in both examples. On the rounded back is a depressed line down the middle. The remarkable long neck and curving nose and the schematic flatness, and the square or rectangular form above the inverted triangle below are today being revived in much modernistic abstract art as in the sculpture of my colleague, Leo Steppat, and the torso by Giacometti in the Museum of Modern Art in New York. The female statuette was probably an idol or votive offering to some goddess. It is of a rare primitive type but well known in the Cyclades (especially Amorgos, Antiparos, Naxos, Paros, Syra) and in one or two examples on the mainland. These marble idols are found in houses as well as graves. They range in height from two centimeters to a meter and a half but are usually small. Some date as early as 3500 B.C. but they are not neolithic and I prefer for mine a date as late as 2500-2000 B.C., Early Minoan III.

2. A head of poor Parian marble⁴ with a few crystals in it, like many of the Aeginetan sculptures (pl. 11, figs. 2, 3). The head is much corroded, damaged, and weathered. One large piece was broken off from the lower left part of the chin but fits and has been replaced. The head has never been finished, as was the case with many of the heads discovered by Furtwaengler on Aegina. This is evident from the unfinished ears and the row of curls beneath the wavy strands of hair above the forehead. The head is said by the dealer to have been found near the Temple of Athena on the island of Aegina about 1901 and it certainly resembles the heads excavated by Furtwaengler in 1903. I cannot find it published or mentioned by Furtwaengler or by any previous publication about Aegina. The eye-

* This paper was read at the annual meeting of the Archaeological Institute of America in New York, December 30, 1953.

¹ Cf. H. von Buttlar, *Griechische Köpfe* (Marburg, 1948) pl. 1 (in Louvre, from Amorgos).

² *Bulletin of Royal Ontario Museum of Archaeology* (Jan. 1930) 1-2.

³ First published by Evans, *The Palace of Minos* I, 115, fig. 83 (Early Minoan III, imported from Paros).

⁴ Its greatest length is 0.26 m., greatest breadth 0.195 m., greatest depth 0.23 m. The wavy strands of hair are 0.025 m. long; the spiral curls below, 0.02 to 0.025 m. high. The forehead is c. 0.03 m. high above the eyelids. The ears are 0.065 m. high. The narrowest breadth of the nose is 0.017 m. The face tapers toward the chin (0.095 m. across the mouth which is 0.045 m. wide); width 0.037 m. at bottom of chin.

lids, which do not overlap, the so-called "archaic smile," the circular (not triangular) upper border of the forehead, the protruding eyeballs, the slightly open mouth, the wavy strands of hair above spirals, the type of nose and helmet, resemble figures of the same marble from the less advanced western pediment of the Temple of Athena, as I still call that on the island of Aegina (now in the Glyptothek in Munich). Compare especially the head of the wounded warrior at the northern corner with similar smile, similar mouth, nose, eyes, spiral wavy hair with wavy strands of the same size above, divided horizontally by a band. There is the same triangular division of the hair on the forehead. A closer parallel is the beardless head of similar size found at the Propylon and published by Furtwaengler in 1906 (now in Athens).⁵ The helmet is quasi-Corinthian and pushed back. The crest is lacking but was added in bronze or marble as in my head and other examples. It comes down the back of the neck as in Furtwaengler, *Aegina*, 230, fig. 177, and lacks the openings for eyes which occur in most Corinthian helmets. Many others of the Aeginetan heads are also similar. The face is broader and fuller and somewhat softer, less dry in treatment. The upper eyelids are better and larger, the ears fleshier and more detailed, and the hair more natural, not rendered in three rows of spirals. Thus I should date the head later than the west pediment but earlier than the east, somewhere at the beginning of the fifth century, after 490 B.C.⁶ Possibly the head belonged either to a life-size statue in a group set up by a loser in the sculptural competition, or, more likely, it belonged to a pediment damaged by the Persians in some raid about 480, which was replaced by the final east pediment sculptures. This earlier pediment, as Dinsmoor says, seems to date from just after 500.⁷ The damaged predecessors were set up opposite the east wing as a memorial of the war. The condition (partly caused perhaps by fire) of my head supports such a theory.

3. A Greek bronze goat bought from a European dealer and said to have been found in Aegium in Achaea along with the bronzes published in *AJA*

46 (1942), 172-197. The he-goat is lying down (pl. 12, figs. 4-5), the head at right angles to the body (length 0.082 m., height 0.07 m.). Engraved lines are used to indicate the ribs and occur also on the horns, beard, and hoofs. Over the right foreleg is engraved a tether as in nos. 2, 7, below. The whole is covered with a dark olive green patina. The inside is hollow and still contains some of the lead filling. The goat is from the rim of a bronze krater and would date in the early fifth century B.C., perhaps even earlier than the bronze hydria published in *AJA* *loc. cit.* There are several similar bronze goats which all appear to come from krater-rims and which have similar lead filling. There follows a list of eight known to me. There probably are many others. They all seem to me to represent the North Peloponnesian style of bronze work, and may have been imported from such places as Aegium to the Cabiric sanctuary at Thebes, Macedonia and even Trebenischte.

1. Goat in Robinson Collection, from Achaea (0.082 m. x 0.07 m.).
2. Goat and parts of the krater from the cemetery of Trebenischte. Cf. Filow, *Die archaische Nekropole von Trebenischte am Ochrida-See*, pp. 53f., figs. 52-54, with an engraved tether (0.068 x 0.053 m.).
3. Goat from Gewgeli, Macedonia. Cf. Filow, *op.cit.*, p. 55, fig. 54 (0.075 x 0.065 m.). In Sofia.
4. Goat from Greece in Loeb Collection. Cf. J. Sieveking, *Die Bronzen der Sammlung Loeb*, p. 25f., pl. X; Richter, *Animals in Greek Sculpture*, fig. 125 (0.115 x 0.063 m.).
5. British Museum, from Greece. Cf. Walters, *Cat. of Gr. Bronzes*, no. 233; Richter, *op.cit.* fig. 122 (0.12 x 0.076 m.).
6. British Museum, from Greece. Cf. Walters, *op.cit.*, no. 234 (0.12 x 0.076 m.); Richter, *op.cit.* fig. 122.
7. Museo Naniano (1815), see S. Reinach, *Répertoire de la statuaire*, iv, p. 513, 3, with engraved tether.
8. Late archaic goat from the Cabiric sanctuary near Thebes, now in the National Museum at Athens (Inv. 10635). Traces of gilding on head and neck. The back is bored through so that it must have been fastened to the rim of a bronze krater. Cf. *AA.* 54 (1939) 587, 594, fig. 4; Neugebauer, *Kat. d. stat. Bronzen im Antiquarium*, 1, no. 185.

4. A herm of Pentelic marble (pl. 12, figs. 6-9), from Athens.⁸ This is a well-preserved herm of the

⁵ Furtwaengler, *Aegina, Das Heiligtum der Aphaia* (1906) pl. 96; Buschor, *Fruehgraeichische Juenglinge* (1950) 95, fig. 108.

⁶ Furtwaengler, *op.cit.* 259-260, no. 120, figs. 217, 219, pls. 73, 74.

⁷ Dinsmoor, *The Architecture of Ancient Greece* (1950) 107, dates the west pediment before 490 B.C., the east a little after 490 B.C. (replaced by the final east pediment just after 480).

I am sorry he still speaks of "the Temple of Aphaia." Because a seventh or sixth century shrine was dedicated to Aphaia is no evidence that the great fifth century temple was dedicated to an almost unknown minor Cretan goddess, and not to the great Athena.

⁸ Ht. of head and neck 0.132 m., with modern wooden mount 0.523 m.; w. across eyes 0.07 m. Greatest depth 0.11 m. Th. of head on top 0.085 m.

last quarter of the fifth century B.C., with only a few ancient breaks on the beard, locks and nose-tip. The horse-shoe shape of the sloping neck's truncation (fig. 8) probably indicates that the marble head originally was meant to be mounted on a trunk of inferior stone or wood, as I have restored it without the phallus. A similar truncated neck on the head of a herm in Athens dates half a century earlier.⁹ It is possible that the horse-shoe depression was due to accidental fracture and that the herm with its base was made from one block. This, however, seems unlikely, even though the strands of hair which fall from behind the ears are curved outwards. I do not believe, therefore, as some have suggested, that bronze strands of hair were attached after the herm was set up or that these locks were partly of stone, partly of bronze. It might seem from the delicacy of execution and accuracy of modelling that no common workman did the herm and such a sculptor, especially if Alcámenes, would also have done the trunk, but that could easily be left to an apprentice. The style of the hair is archaic, ending in ringlets which come out over the forehead, but this is of little importance in dating, since the conservative herm-cult retained that mode through Hellenistic times. More important criteria for date are the wavy, conventionalized parallel lines on the crown of the head, as in the Aegina head (pl. 11, fig. 2), bound by a fillet. The sixth century head dug up in the Agora and all earlier originals follow the same mode without deviation, whereas later copies adopt variations which are more or less elaborate. At first I was inclined to think that the hair over the forehead ended in plain round knobs, but after study with a magnifying glass, I am convinced that this effect is due to wind, rain, and exposure, since on the side can be seen the swirls of ringlets delicately made and not like the mechanical sameness of later copies. There are

three rows of curls (23 in top row, 20 in middle, 19 in lowest).¹⁰

The eyelids do not overlap and Walston¹¹ gives a date after 438 B.C. for "the projection and continuation of the upper eyelid over the lower at the outer angle of the eye," but it is not marked and characteristic till about 420 B.C. The ears are carefully made and not archaic. The beard is skillfully carved, of the usual form and workmanship of the last third of the fifth century. It has advanced from the conventional wavy lines to delicate small curls which became so prevalent in beards of the later classical period. Unfortunately the break at the bottom prevents us from knowing whether the beard there was conventionalized but the curls probably continued to the bottom. The long locks which would have come down over the shoulder were broken off in ancient times, perhaps at the time of the mutilation of the herms by the Hermocopids in 415 B.C.,¹² just before the departure of the Sicilian expedition. The workmanship is so good and the resemblance to herms of Alcámenes is so close that he or a pupil may have executed this herm. Pausanias¹³ speaks of him as ranking only second to Phidias as a sculptor. He says¹⁴ that the form of his Aphrodite in the Gardens is "square like the images of Hermes." Alcámenes¹⁵ did for the Propylaea a figure of Hermes Propylaeus, now identified by a herm from Pergamum with the name of Alcámenes¹⁶ but attributed to Socrates by Pausanias. By its archaic style, the three rows of curls over the forehead, and the hair bound by a band, it is evident that Alcámenes did not vary from the traditional herm. The only striking difference is the more elaborate treatment of the beard. My herm is more like the one of Pentelic marble in the Hermitage¹⁷ which Waldhauer dates about the middle of the fifth century. The hair arrangement is simi-

⁹ AM 53 (1928) 79f., Beilagen XXVI 2, XXVII 1, Nat. Mus. 104 (Athens). Earlier herm of end of sixth century published in *Hesperia* 2 (1933) 514-56, figs. 1-2, compared with Dickins, *Cat. of the Acropolis Mus.* nos. 621, 642.

¹⁰ For type of hair cf. the Pergamene bust of Alcámenes and the Barracco head in Rome, Richter, *The Sculpture and Sculptors of the Greeks*, figs. 628, 164; Walston, *Alcámenes*, fig. 128 (Pergamene bust in Istanbul), fig. 129 (Roman copy in Berlin).

¹¹ *Alcámenes*, 63.

¹² Thuc. 6.27-29; Andocides, *On the Mysteries*, 62.

¹³ Paus. 5.10.

¹⁴ Paus. 1.19.2.

¹⁵ Paus. 1.22.8.

¹⁶ AM 29 (1904) 180-183, 208-211, pls. 18-21; Schrader, *Phidias*, fig. 179 (copy in Berlin, figs. 177-178); E. Schmidt,

Archaistische Kunst II, pl. 21; Schröder, *Alcámenes Studien*, Berlin 79th *Winckelmanns-Programm*, 1921, figs. 1, 7, 8; Winter, *Altertümer von Pergamon* VII, 1, 48-53, Beiblatt 5, pl. 9; Richter, *Sculpture and Sculptors of the Greeks*, fig. 678. The Italians try to identify a herm, *ILN* (May 20, 1933) 712-714, of Pentelic marble with an early treatment of the hair, as the actual original work by Alcámenes, and the herm statue in the Athenian Propylaea as a copy. But there is no documentary or other real evidence for this theory except a Rhodian inscription which says "to Hermes Propylaios." The Athenian one was the original, of which there are many copies. For a Roman copy from the Agora of Athens cf. *Hesperia* 8 (1939) 237, fig. 35.

¹⁷ Cf. Waldhauer, *Die antiken Skulpturen der Ermitage I* (1928) pls. 31-32, fig. 53; pl. 33, fig. 54; pl. 34, figs. 55-57 (free adaptations), fig. 57 probably modern.

lar, even the narrow band which binds it. The profile and full face are similar, especially around the mouth where the beard falls away on both sides. The size is approximately the same. There is also a stylistic resemblance to the head of the statuette of Dionysus Eleuthereus in the Hermitage,¹⁸ an original of the fourth century but modelled after the fifth century statue of Alcamenes. The head is about the same size. The eyes, mouth and beard are similar. The profile is similar and on the side of the beard the hair curls. The hairline, too, is similar, flatish on top and descends almost perpendicularly to half encircle the face. The bottom row of curls has 16 as against 23 in the upper, 20 in the middle, and 19 in the bottom row of my head, but the majority of the copies have only 16 or 18 (16 on lowest row in Berlin copy; also in the excellent Roman copy of my head shown in pl. 13, fig. 10).

I have already discussed at length herms and their origin in connection with those found at Olynthus (including the earliest female herms).¹⁹ Since then (1941) Miss Goldman has published an article on "The Origin of the Greek Herm."²⁰ She believes that the herm originated as a country-side wooden shaft on which clothes and a mask were hung to make a kind of scare-crow. She suggests Dionysus as meant. But I prefer to think of the earliest herms as markers of boundaries connected with Hermes as guide and tutelary god of cross-roads, traffic, markets, etc. Athens was the first to make images of Hermes without limbs such as Cimon dedicated²¹ to Plutarch. Pausanias says: "The use of square-shaped images of Hermes is Athenian and from Athens the usage has passed to other parts of the world." But the idea of worship of pillars goes back to the Minoans and still continues in Macedonia.²² The name may have come from

the connection of Hermes' name with the Greek word *ἔρμα*, a mound or cairn or prop or square support.²³ The earliest image of Hermes may have been a wooden phallic pillar such as is seen on vases,²⁴ forerunner of the stone herm. Piles of stones were collected in his honor by the roadside and travellers added one or more as a sign of reverence. Curtius²⁵ has well shown the evolution from Homeric times when Epeius, who made the wooden horse, carved a holy herm of wood.²⁶ In his fig. 3, Curtius pictures stones stacked about a central pillar. Figs. 4 and 5 show the earliest type of the human form, and fig. 9 illustrates the emergence from the pillar, while figures 12-14 show the entire figure's growth.²⁷ The Athenians, according to Herodotus,²⁸ learned to make the phallic herms from the Pelasgians who came down from Samothrace.²⁹ Whether the origin goes back to Indo-European invaders, as Picard believes, or to the Pelasgians, as I believe, the herm seems to have developed from some form of rough uncarved stone or natural formation (baetyl) or cairn of piled up stones which took on a religious meaning with the introduction of the square pillar.³⁰ Sculpture supplied them with heads of Hermes or Zeus or Dionysus, to whom the ephebe made his dedication; but they were used mostly in the service of Hermes along roads as signs of direction, near tombs and temples, in gymnasias, palaestra, as turning posts in the stadium, in libraries and courts of houses where women revered them.³¹ There was a row of them in the Agora from the Royal Portico to the Stoa Poecile. Hipparchus, son of Peisistratus, set up many marble herms as markers along the roads near Athens, with inscriptions in hexameter verse on one side giving directions and distances and on the other side some moral precept in pentameter (such as *γνώθι σαυρόν* on

¹⁸ *idem*, pl. 7.

¹⁹ D. M. Robinson, *Olynthus* 10, 6-14.

²⁰ *AJA* 46 (1942) 58-68.

²¹ Plutarch, *Cimon*, 7, 3-5. Thucydides (6.27) says that pillars of square construction, which according to local custom stood in great numbers both in the doorways of private houses and in sacred places, nearly all had their faces mutilated on the same night. Plutarch, *Alcibiades*, 18, 3, says: "The mutilation of the Hermae, most of which, in a single night, had their faces and forms disfigured, confounded the hearts of many" (Loeb).

²² Cf. Evans, *JHS* 21 (1901) 200-204.

²³ Cf. Cook, *Zeus* II, 383-384, note 7.

²⁴ *FR.*, pl. 115.

²⁵ *Die Antike Herme*. For surviving herms cf. R. Lullies, *Die Typen der griechischen Hermen in Königsberger Kunstgeschichtliche Forschungen* 3 (1931) 11f., 36, 55, 74. Lullies lists for the sixth century two heads and one herm, and for the fifth, fragments of trunks, and one head in Athens, *AM*

53 (1928) 79f., Beilagen XXVI, 2; XXVII, 1, *AM* 54 (1929) 79f.

²⁶ Cf. Picard, *Manuel d'archéologie grecque, La sculpture I* (1935) 557, n. 4. Pausanias (1. 27.1) mentions a wooden Hermes, said to be an offering of Cecrops. *SB BayAkd* (1934) nos. 10, 23-30.

²⁷ This progression is also illustrated by Deonna, *Dédale*, 1, 55. *Her.* 2, 51.

²⁸ Cf. Picard, *Polythéisme hellénique* 2, p. 103; Raingeard, *Hermes Psychagogue*, 350, 587f.

²⁹ Cf. List in Roscher, *Lexikon*, s.v. "Hermae"; Lullies, *op.cit.* Pausanias (8. 48. 4) says that the Arcadians were exceedingly fond of the square shape. At Pharae in Achaea Pausanias (7. 22. 2-4) saw a stone image of Hermes with a beard. . . . of square shape, of no great size and about 30 square stones, each with the name of a god.

³¹ Cf. Schroeder, *Sport in Altertum*, pls. 14, 34, 36, 58. For herms in gymnasium cf. Paus. 1. 17. 2.

the Pergamum herm). Peisistratus had greatly increased their number. That in *Hesperia* 2 (1933) 514-516, figs. 1-2, dates from his time; that published *ibid.*, 517-518, figs. 3-4, is probably of the second quarter of the century.³² Some of those published by Crome in *AM* 60-61 (1935-36) 300ff., pls. 101-108, perhaps belong to the herms dedicated by Hipparchus (pl. 13, figs. 11-12).³³ Another from the late sixth century has come into the possession of Professor Semple and is now in the Museum of Art at Cincinnati (pl. 13, figs. 13-14). My head dates around 420 B.C. and so is unique in being one of the herms, as I have said above, mutilated by Alcibiades and his friends on the eve of the departure of the Sicilian expedition, an event that was taken to be a bad omen, portending calamity, one which almost led to his downfall. The number of herms harmed was great. Andocides³⁴ says that only the one before his own door remained intact. The following copies are known to me.

*Copies of the Pergamene Head
of Alcamenes*

1. Athens. *ILN* (Oct. 19, 1935) 645, fig. 4 (fifth cent.).
2. Athens. *ILN* (Oct. 19, 1935) 645, fig. 5 (Roman copy). Cf. also *ibid.* (July 9, 1938) 57 and *Hesperia* 8 (1939) 237, fig. 35.
3. Athens. Many free replicas. Acropolis nos. 1322, 1324, 2281, 2375, *AM* 29 (1904) 185.
4. Athens, stadium. *JOAI* 32 (1917) 83.
5. Belgium. Musée de Mariemont, *Cat. de Coll. R. Warocqué* (1916) 77, No. 142 (hardly belongs to type).
6. Belgium. Brussels. Cumont, *Catalogue des sculptures et inscriptions antiques des Musées royaux du Cinquantenaire*, 13-15 (good herm of Parian marble, fourth cent. B.C.). Formerly in Collection Warocqué.
7. Berlin. Blümel, *Katalog der Sammlung der antiken Skulpturen*, IV, 17 (lifeless). K 134.
8. Berlin. Schmidt, *Archaische Kunst*, pl. 21; K 133, p. 8, pl. 16 in Blümel. Cf. also Winter, *Die Typen der figürlichen Terrakotten*, I, 232, 5.
9. England. Chatsworth House *JHS* 21 (1901) pl. 8 (not a true copy).
10. England, Cambridge, Sir Frederick Cook Col-

lection. *JHS* 28 (1908) 37-38, No. 59, fig. 19. Present location unknown. Poor, late adaptation.

11. Geneva. Deonna, *Choix de Monuments de l'art antique*, No. 5 (Roman double herm with Apollo).

12. Granada, Spain. Marin, *Exposición de arte histórico* 246; *AA* 29 (1914) 379, fig. 54.

13. Istanbul. Mendel, *Catalogue des Sculptures* II, 234 (342), No. 527; Picard, *Manuel d'archéologie grecque* II, 554-555, fig. 227 (second cent. A.D.); Walston, *Alcámenes*, 153; Winter, *Pergamon* VII (1908) 1, 48f., Beiblatt 5, pl. 9; *AM* 29 (1904) 179-185, 210, pls. 18f.; Curtius, *Bärtiger Götterkopf*, pp. 48ff. in *Zeus und Hermes*.

14. Formerly in Istanbul. Present location unknown. Millington, *Ancient Unedited Monuments* II (1822) 18, pl. 11.

15. Leningrad. *Arch. Mitt. aus Russischen Sammlungen*. Waldhauer, *Die antiken Skulpturen der Eremitage* I, pls. 31-32, p. 68, fig. 53, from Hadrian's villa at Tivoli (excellent copy but somewhat changed by later refinements in eyelids, curls and mouth), figs. 54-57 very free adaptations. Cf. also *JOAI* 29 (1935) 30, fig. 26.

16. Mississippi, University. Robinson Collection (our plate 12, fig. 9).

17. Munich. Furtwaengler, *Beschreibung der Glyptothek König Ludwig's I* (1900) No. 200; Springer-Michaelis, *Handbuch der Kunstgeschichte* (1907) 5th ed., fig. 371. Cf. also *Die Terrakotten der Sammlung Loeb* I, pl. 12, 2; Cf. Winter, *Typen* I, 231, 5.

18. New York. Metropolitan Museum. Bronze herm. Richter, *Sculpture and Sculptors of the Greeks*, fig. 629.

19. Ostia, no. 6.

20. Paris. Louvre: Reinach, *Recueil de Têtes antiques*, pl. 41, p. 35, two colossal examples. Whole herm with phallus. Winter, *op.cit.* I, 232, 6.

21. Rhodes. Herm of Hermes Propylaeus found at Camirus, perhaps an original by Alcámenes; *ILN* (May 20, 1933) 712-713.

22. Rome. Jones, *The Sculptures of the Museo Capitolino*, pl. 37, no. 18.

23. Rome. Jones, *The Sculptures of the Palazzo dei Conservatori*, p. 222, pl. 83, 15, 17 (15 is a late formal copy, 17 is a good copy of Pentelic marble).

24. Rome. Villa Medici. *AM* 29 (1904) 184. Excellent copy.

25. Rome. Museo Torlonia, pl. 127, No. 499, pl. 128, No. 499 (two heads in type but hardly copies). Now in garden of Barberini palace.

26. Rome. Giardini del Pincio. Neg. Germ. Inst. 136.

27. Rome. *EA* 2021.

28. Rome. Nat. Mus. Paribeni, *Museo Nazionale*

³² Cf. *ILN* 187, 12 (Oct. 19, 1935) 645, 695. Fig. 4 is of late sixth or early fifth century, fig. 5 is a Roman copy.

³³ Cf. Plutarch, *Hipparchus*, 228d-229ab, Suidas, *Harpocraton*, s.v. Ἱππάρχου ἑρμαῖ. Plate 101 (also pls. 103-104) in Crome, *loc.cit.* is from Siphnos as is no. 3728 in National Museum in Athens. The head in pl. 102 from Athens is said to have disappeared but it is the one in Cincinnati. Plate 105 (106) is from Attica and is now in Vienna. The Semple head (pl. 102; also *AM* 62 [1937] 149, pl. 67) is published in a preliminary way in the *Bulletin of the Cin-*

cinnati Art Museum 2 (1931) 40-43 and reproduced in our figures 12-13 by their permission. It is 0.15 m. (6 5/8 in.) high, of creamy white Pentelic marble, found near Athens. It dates from 510-500 B.C. For eyes and forehead cf. Payne, *Archaic Sculpture from the Acropolis*, pl. 91. Cf. also *Ny Carlsberg Glyptothek*, no. 1, *EA* 3754-55. On herms of severe style in general cf. Poulsen, *From the Collections of the Ny Carlsberg Glyptothek* 2 (1938) 100ff.

³⁴ Cf. *On the Mysteries*, 63; Plutarch, *Alcibiades*, 21.

Romano, *Sculture Greche del V Secolo* (1953) 60, 68, 69, 70.

29. Rome. Vatican. Amelung, *Die Skulpturen des Vaticanischen Museums*, pl. 82 (two models or replicas). Lost but refound, *ILN* (Sept. 9, 1922) 380. Cf. also herm with different beard in Galleria Geographica, Curtius, *Zeus und Hermes*, p. 70, figs. 29-30, pl. 21.

30. Rome. Giardino Barberini. Curtius, *Zeus und Hermes*, 66-78, figs. 27-29, pl. 20 (a true copy); Prasch- niker, *JOAI* 29 (1935), 28, fig. 25; *ILN* (Sept. 9, 1922) (Vatican?).

31. Smyrna (Ismir). Herm of Ephesian marble, from gymnasium at Ephesus, of P. Veditus Antoninus (ca. A.D. 150) with inscription: "Alcamenes devised the form which you see," not a new work of Alcamenes, as Prasch- niker, Schmidt, Waldhauer believe, nor an original (470-460 B.C.). It differs in hair, ear and beard. *JOAI* 24 (1929), Beiblatt, 21-32; 29 (1935) 23-31; the Leningrad-Ephesus-Munich type is most reproduced.

32. Trieste, *Archeogr. Triestino* 2 (1906) 1, a replica less than life-size.

33. Small herms of this type in Walters Art Gallery, Johns Hopkins University and elsewhere.

5. A bronze statuette of Pan (pl. 14, figs. 15-17). This bronze was found near Argos (ht. 0.146 m.), the home of Polyclitus. The goat's feet are modern but it is one of the finest Roman copies of a Polyclitan figure, with a beautiful green and brown patina. It is a Polyclitan athlete (pl. 14, fig. 18) transformed into a superb Pan, and the modeling corresponds closely with that of the famous "Paton" terracotta Diadumenus, now in the Louvre and with that of the Diadumenus in New York (pl. 14, fig. 19) and other Roman copies of the Diadumenus and the Doryphorus.³⁵ The weight is on the forward leg and the proportions agree accurately with those of the Polyclitan canon. The brow is 1 palm, here .007 m.; lower leg 6 palms, here 0.041 m.; thigh 6 palms, here 0.041 m.; navel to ear 6 palms, here 0.041 m.; total height of body 18 palms, here 0.123 m.; toe

to crown, here 0.146 m., face 1/10 of this, here 0.0146 m., head 1/7 of this, here 0.021 m.

6. Head of Aphrodite (pl. 15, figs. 20-23).³⁶ This is a beautiful head of Parian marble with a brown patina and some root marks due to age. It is part of a life-size statue and was said by Mr. Vomvilas who brought it to America from Rhodes to have been sold to him by a Turk who said it had been excavated near the Temple of Artemis at Ephesus c. 1927. I have searched in vain among the sculptures published by British and Austrians to find other parts. The style does resemble that of an Ephesus relief.³⁷ If we could trust the statement of the Turk, the head might portray Artemis. But I am inclined to call it Aphrodite because of its sweetness and slight resemblance to the Cnidian Aphrodite. It is almost a free replica of the head of the Venus of Arles. The inclination to its left is like that of the bronze statue of the ephebe found in the Bay of Marathon³⁸ or the bronze statuette of Aphrodite in London.³⁹ It reminds one of the charm and dreaminess of Praxiteles, especially of his Apollo Sauroctonus⁴⁰ but also with the deep set eyes, of the Tegea head of Scopas,⁴¹ and of the Aphrodite of Melos.⁴² The head is almost a replica of that of the Venus of Arles which has the same features, the same wavy hair, eyes, nose, mouth and even the same inclination of the head to its left.⁴³ The hair is wavy below and above the fillet, parted in the middle, and can be restored at the rear after the fashion of the Kaufmann head. The ears are likewise covered at the top, but there is a second fillet across the forehead as on the Acropolis head of Ariadne.⁴⁴ The expression lacks vigor and is too sweet and dreamy and human for an original by Praxiteles but it may be a Hellenistic eclectic head⁴⁵

³⁵ Cf. Richter, *The Sculpture and Sculptors of the Greeks*, 247-250.

³⁶ Ht. 0.295 m. Greatest width 0.19 m. Depth 0.225 m. to bottom of neck; 0.145 m. from tip of r. ear; 0.05 m. from tip of l. ear. W. of lowest fillet 0.015 m. Greatest ht. of forehead above eyebrows 0.035 m. W. of top of nose 0.013 m., of bottom 0.032 m. W. of mouth 0.05 m., of chin 0.025 m. Slight scratches, large break on head's left top and at back of hair. Tip of nose broken.

³⁷ Cf. *Parnassus* (April 1936) 9-10.

³⁸ Richter, *op.cit.*, fig. 46.

³⁹ *idem*, fig. 49.

⁴⁰ Cf. Aphrodite of Cnidus, Richter, *op.cit.* figs. 668, 671 (Kaufmann head in Berlin with similar hair in front and similar knot at back). For head of Praxiteles' Apollo Sauroctonus, of which my head is almost a replica cf. Charbonneaux, *La Sculpture grecque classique*, cover and pl. 96. Style re-

sembles that of Dionysus bust in the Capitoline Museum, BB 383, and especially that of head from the south slope of the Acropolis with two fillets, *JDAL* 34 (1919) 123, fig. 19.

⁴¹ Cf. Morgan in *Studies Presented to Edward Capps*, 259.

⁴² Richter, *op.cit.* fig. 535.

⁴³ Cf. Charbonneaux, *op.cit.* 92.

⁴⁴ Richter, *op.cit.* fig. 508 (Athens Nat. Mus. 182). Cf. also *JDAL* (1919) 122 (Ariadne); von Buttlar, *Griechische Köpfe*, 66 (third quarter of the 4th century B.C.). For very similar hair on top of the head and at sides covering ears and band across forehead of the head cf. Dionysus in Basel in the style of Leochares according to Schefold but surely also influenced by Praxiteles, *JOAI* 39 (1953) 95-97, figs. 37-39.

⁴⁵ One is even reminded of the head of the Polyclitan Diadumenus (Bieber, *Cat. of Cassel*, pl. XI). Cf. also Blümel, *Cat. of Berlin*, K 251; Reinach, *Recueil de Têtes*, 89 (in Rome, c. 400 B.C.).

or even a fourth century work of the sons of Praxiteles.⁴⁶ The Praxitelean melting look of the eyes, the beautiful undulating locks of hair, the sensitive lips, the fine modelling, the grace and softness, the passing of one plane into another are still preserved but other features such as the breaking of the triangular forehead and the tapering of the face have been introduced.

7. Head of Alexander (pl. 16, figs. 24-29).⁴⁷ This head is of Parian marble and is said to have been found near Corinth where Diogenes lived in a pithos and told Alexander to stand out of his sunlight. In spite of its small size, it must rank as one of the finest portraits of Alexander, dating c. 300 B.C. Alexander wears a lion's scalp as he does on the famous sarcophagus from Sidon, now in Istanbul,⁴⁸ and on coins. In quality and expression the head closely resembles that of the best of all statues of Alexander, the figure in Istanbul from Magnesia on the Maeander.⁴⁹ The Lysippic character is unmistakable.

8. The head of Menander I have already published in detail in the *Proceedings of the American Philological Society* 83 (1940) 465-477. I still agree with my former teacher, Studniczka, that this type of bust⁵⁰ represents the great comic poet, Menander (342-291 B.C.), who was so popular in Roman and mediaeval times and who, with Homer, was first read by Roman boys. Menander is even quoted in the New Testament and occurs in Roman Antioch and later mosaics as Post, Stillwell, Elderkin and Friend have shown.⁵¹ I fear that Crome and Rhys

Carpenter,⁵² America's leading student of art, who believe Vergil is the subject, have not studied my article carefully. Some of the 40 replicas date long before Vergil and this type is certainly third century B.C. The characteristic Augustan hair, which Carpenter emphasizes, is easily paralleled in the 3rd century B.C. Miss Bieber tells me that she agrees with me in her *Sculptures of the Hellenistic Age*, now in proof in the Press of Columbia University.

9. Another head (pl. 17, figs. 30-33)⁵³ about which there has been much controversy for more than 355 years, ever since Fulvius Ursinus in *Illustrum Imagines* (1598) first called this type of head Seneca. No portrait has inspired so many archaeologists to test their ingenuity in guessing who is represented. It may represent the greatest comic poet of all times, Aristophanes, as Miss Bieber suggested.⁵⁴ My head is the only replica in America except possibly one from the Brummer sale whose present location I do not know. It was recently excavated in Rome and came to me through Jandolo and I wish it could be proven to be the head in Rubens⁵⁵ picture (A.D. 1602) of the Four Philosophers which has disappeared and is known to have been sent into Italy. The type has been discussed by Guido della Valle in the *Rendiconti Accademia dei Lincei* (Serie 12, 1936) and a complete list of replicas is now given by Bertil Strandman, *The Pseudo-Seneca Problem*,⁵⁶ who examines the provenance and chronology of 32 replicas (2 from Alexandria, 2 from Greece). The original is rightly dated to the emotional, pompous Pergamene period (250-150) but it is wrongly called Philemon. All have the frontal

⁴⁶ Cf. *BMA* (Oct. 1943) 84 (post-Praxitelean).

⁴⁷ Ht. 0.105 m. W. across eyes 0.064 m. Greatest width at bottom 0.07 m. Depth 0.073 m.

⁴⁸ Hamdi Bey, and Reinach, *Une nécropole royale à Sidon*, pl. 30.

⁴⁹ Cf. also the Sieglin head in Stuttgart; Azara herm in the Louvre; that in the Barracco Collection in Rome; the Priene Alexander in Berlin; the Dresden head; the Rondanini statue in Munich, etc. (but all these without lion's skin on the head). Cf. Suhr, *Sculptured portraits of Greek Statesmen*, 46-133, figs. 14, 10-19; *BSA* 26 (1923-1925) 67-68, pl. 8, found in Rhodes; *AM* 63 (1938-1939) 63f., pls. 1, 16.

⁵⁰ Cf. Bernoulli, *Griechische Ikonographie* II, p. 113. Post, Friend, Miss Richter, *op.cit.* 268-269, think that these busts may reproduce the statue of Menander of which the base, by the sons of Praxiteles, was found in the theater in Athens (Löwy, *Inschriften*, 108-112).

⁵¹ Cf. Statius, *Silvae*, 2. 1. 113-119; Ovid, *Tristia*, 2. 370; Quintilian, 1. 8. 7; 1. 11. 12; 10. 1. 69-72; Ausonius, *Ep.* 22. 46f.; Post, *AJP* 62 (1941) 460; *From Homer to Menander*, 312-315; Elderkin, *AJA* 39 (1935) 98-105; *Antioch-on-the-Orontes* III, 176, no. 110; 185f., no. 131 (Stillwell); 248-251, pls. 50, 63 (Friend).

⁵² *Hesperia* 20 (1951) 34-44, pls. 19-23.

⁵³ Greatest ht. 0.32 m., w. 0.19 m., depth 0.23 m. Ht. of ears 0.055 m. From bottom of r. ear to bottom of neck 0.123 m., of l. ear 0.14 m. Eyes 0.035 m. long. Ht. of bare forehead 0.065 m. W. of mouth 0.05 m. Bottom 0.17 m. by 0.15 m. Deeper cut behind l. ear than in right. There is a broken piece in top replaced with peg. Round holes at bottom of some curls in back show use of drill. Veins in front and deep cheek.

⁵⁴ *RM* 32 (1917) 122ff.

⁵⁵ Cf. *JOAI Beibl.* (1898) col. 139f.; Lipsius, *Preface to Senecae Opera* (1615); Rooses, *L'oeuvre de P. P. Rubens* (1890) IV. 203f. No. 977; V. p. 212, Nos. 1403, 1405; Strandman, *op.cit.* 86, A 5, pl. VI; Gachet, *Lettres inédites de P. P. Rubens*, p. 2 (in 1620, still in Rubens' Gallery).

⁵⁶ *Konsthistorisk Tidskrift*, Stockholm, 19 (1950) 53-93, 20 figs., 6 pls. Cf. Schefold, *Die Bildnisse*, 135-137 and Hekler, *Greek and Roman Portraits*, 118b-120; (A.Br. 1211-18; Rodenwaldt 457; Laurenzi, pl. 46, bronze bust from Herculaneum in Naples dated first century B.C. Same dated second century B.C. by Buschor, *Das hellenistische Bildnis*, fig. 26 and called a poet. W. Mueller, *Die griechische Kunst*, 387.

locks, long hair, open mouth, sunken cheeks, loose folds of the neck, and the same distribution of the beard. Despite dissimilarities due to copyists, they all go back probably to a bronze portrait statue. As Strandman says (p. 66): "The head represents a man old in body but still in full possession of his mental powers. The half open mouth is usually regarded as indicating an utterance of some kind. The ailing appearance mentioned by some seems observable only in certain replicas . . . the head is upturned and somewhat tilted to the right. The hair is fairly long with some disordered locks falling over the wrinkled brow. The eyes lie in deep cavities, occasionally recalling those of Homer portraits. The nose is arched and from the wings run two sharp furrows that, with the slightly open mouth, form a triangle. The cheeks are sunken. There is a beard on the cheeks and around the mouth, but the chin is bare. Two flaccid neck-folds extend from the chin to the pit of the throat."

The Seneca interpretation reigned until Winckelmann, in 1764, questioned its accuracy. He had a strong antipathy to Seneca and could not understand how even during Seneca's life it was possible to produce so many effigies of a man with such a bad reputation.

In a double herm found in 1813, Seneca was represented as really corpulent and almost bald. The bust might represent, as my former teacher Furtwaengler maintained,⁵⁷ Hipponax, as certainly does the realistic Hellenistic bust in the National Museum of Athens (inv. 2800) pictured by Herbert von Buttlar, *Griechische Köpfe* (Marburg, 1948) pl. 87. The temperamental, venomous, sad, sickly expression, full of sarcasm, well portrays the satirist who invented the limping iambic or skazon meter imitated by Herondas, Theocritus, Catullus and others. He was the favorite of the café-chantants of Ephesus about 575-540 B.C. who said there are two best days in a woman's life, one when she is mated

and the other when she is cremated (wrongly translated by the late Mrs. Wright of Bryn Mawr:⁵⁸ "There are two days on which a woman gives a man most pleasure."):

δύ' ἡμέραι γυναῖκός εἰσιν ἡδίσται
ὅταν γαμῇ τις κακφέρῃ τεθνηκυῖαν

Miss Bieber's opinion is based mainly on the double herm in the Villa Albani (no. 67), [pictured by Hekler (pl. 105a)]. This is certainly a combination of Menander and the type of my head, and what poet other than Aristophanes or perhaps better Philemon could be associated with Menander? Poulsen⁵⁹ and others doubt the attribution but Schefold⁶⁰ seems to accept it. Miss Bieber will give additional arguments in her forthcoming book. My only objection is that Aristophanes⁶¹ was supposed to be bald. But perhaps Aristophanes is exaggerating his sparse hair. Moreover, the Hellenistic Age considered baldness a disgrace and that it showed an overdeveloped sex feeling, a great fondness for the ladies as Aristotle, *De generatione animalium* (V 3, 783 b), says. So Aristotle and Aristophanes were sculptured with more hair than they had when alive. The equal popularity with Menander (40 replicas of the first and of the second), the fiery, almost inebriated expression,⁶² the suffering, the realism, magnified by the heavy strong eyebrows above the deeply sunk eyes, the slightly open mouth beneath a short sharply bent nose, the disordered long strands of hair coming down in confusion over the high forehead, the unshapely head but extremely earnest look of reflection and intelligence, though somewhat sad, must be those of some important Greek poet or philosopher. One of the replicas has an ivy wreath⁶³ which points to an iambic poet such as Hipponax rather than a philosopher. Miss Bieber cites *Anthologia Palatina* IX, 186 as showing that an ivy wreath belonged to a portrait of Aristophanes. But Strandman (*loc.cit.*

⁵⁷ Sammlung Somzée, 49.

⁵⁸ *History of Greek Literature*, 90.

⁵⁹ In *Greek and Roman Portraits in English Country Houses*, 37, n. 1, Poulsen says: "Margarete Bieber in RM 32 (1912) 129 attempts a quite improbable combination with the pseudo-Seneca."

⁶⁰ *Die Bildnisse der antiken Dichter, Redner und Denker* (Basel 1943) 134 mentions 40 replicas (Strandman only 32). Schefold puts a question mark after Aristophanes and thinks that the bronze head in Naples from the villa of the Pisonas at Herculaneum is an excellent copy of a bronze statue dedicated about 200 B.C.

⁶¹ *Peace*, 765ff. in answer to Eupolis who had mentioned the baldness of Aristotle. Cf. the herm of Aristophanes in Rome

which puts thick hair on Aristophanes' temples. As Poulsen, *From the Collections of the Ny Carlsberg Glyptothek* (1931) 1.28 says: "The portrait takes no consideration of the real external appearance of Aristophanes. . . . The portrait must have been made at a time when there was no longer any memory of his actual face."

⁶² Athenaeus (10.429) says that Aristophanes was drunk when he wrote his poetry. Cf. Schefold, *Die Bildnisse der antiken Dichter, Redner und Denker*, 134-137 (Aristophanes?).

⁶³ An ivy wreath is on the Terme copy. Cf. Poulsen, *Ikono-graphische Miscellen* (Copenhagen, 1921) 41-46; Bernoulli, *Griech. Ikon.* 2, pl. 23; Plutarch, *Quaest. Conviv.* 3, probl. 1, 3; 2, 1; Athenaeus, 14, 622f. (Iambic poets).

72-79) thinks that the wreath can refer to any dramatic poet, especially Philemon. The latest theory is that of Laurenzi, who has been calling the head "Homer" in his lectures on the subject in Rome. He will publish it in the *Atti della Accad. Pont. di Arch.* Personally I like the theory of Löwy⁶⁴ that Euripides is portrayed but others have proposed the names of Homer, Hesiod, Archilochus, Hipponax, Pindar, Aesop, Callimachus, Epicharmus, Eratosthenes, Philemon (Studniczka, Poulsen, before Strandman), Seneca and even Lucretius (De la Valles and Lippold), who would hardly have a statue in the Odeum of Carthage. Let us hope that a replica with a genuine inscription is found to settle the question.⁶⁵

10. A Head of a Faun (pl. 18, figs. 34-37). This head of Asia Minor(?) marble was found in Albania and brought to Rome during World War II. But it certainly shows Pergamene influence and may originally have come from there. Unfortunately the nose is much damaged and there is a flat break on top of the left side of the head. It is a powerful head with strong individualism. The eyes are sunk in deep shadow, the eyebrows are large and heavy. The forehead has the so-called bar of Michelangelo, with a deep, horizontal ridge above the eyebrows; the cheek bones are pronounced and high. The cheeks are slightly hollow, and the mouth is slightly open. The hair is arranged in rough, dishevelled, deep-curling locks, turned up at the back to expose the neck. The pointed ears are long and not covered by the hair, which reminds one of the Dying Gaul in the Capitoline Museum in Rome, of the Gaul who has slain his wife and is committing suicide in the Terme Museum,⁶⁶ and of other Pergamene heads. The reflective dreamy look and rough hair in contrast to the smooth face betray Praxitelean influence. The deep eyes, open mouth and other features show the influence of Scopas. It is an original eclectic head of the third century B.C., of the Pergamene School, which, as Miss Guptill (Mrs. Carpenter),⁶⁷ has shown in her unpublished

dissertation owed much to Attic sculpture. The head belonged to a statue of a satyr, who is no fierce monster, but like Praxiteles' Marble Faun, a genial creature of the woods, crowned with a bronze wreath of ivy or laurel as the holes prove. They survive on top and all around the head, even on the lower back of the hair. Can it be an actor who made a specialty of the satyr drama, or one who won the crown of victory in a choregic or dramatic competition? The realism and emotion leave the impression of a definite individual of intellect, and with a strong personality, rather than Pan, associated with the God of Wine. It is one of the best original Hellenistic heads found in recent years.

11. Terra Cotta Head (pl. 19, figs. 38-41).⁶⁸ This is an unusually fine head despite its careless workmanship, especially on the hair. Red paint remains on the chin, showing that the whole face was covered with red. The head was said by Gustav Polak, from whom I purchased it in 1906, to have been found at Veii. But it does not resemble the Apollo or Artemis or any other of the Etruscan sculptures excavated there. It is surely Roman work, of the first century A.D. and must date after the Roman conquest of Veii. It was probably part of a statuette as the break on the bottom shows. It was hollow. The hair is arranged in rough ringlets and there is a horizontal division on the back of the neck with a row of crescent curls below as in the next two Roman busts. The eyebrows are heavy with a kind of herring-bone pattern. The eyes are deeply sunk and small with oblong, hollow pupils. The forehead is high with the "bar of Michelangelo" well emphasized. The nose is long and sensitive, curving into the eyebrows at the top. The ears are badly done and stick out, but the mouth is slightly open, and has well-rendered curving lips. The face is intelligent and keen like that of the Boston terra cotta head. The head is a portrait, and must represent some important Roman who, like Cicero, is reflecting on some problem of philosophy or politics, but who?

⁶⁴ *JOAI* 26 (1930) 129-135.

⁶⁵ For literature cf. *RendLinc* 6 (1936) 571ff. Crome, *Bildnis Vergils*, 59ff.; Arndt-Lippold, *Gr. und Röm. Porträts*, 1211-1219, Hekler, *Greek and Roman Portraits*, text to pls. 118, 119.

⁶⁶ Cf. *AJA* 36 (1932) 418-423. In *Hesperia* 7 (1938) 548, Hadrianic figure from gigantomachy frieze at Corinth has head with hair like that of my faun (Dionysus). The oily, rope-like appearance is characteristic of Pergamene style. Cf. Dickins, *Hellenistic Sculpture*, 9, 11. Diodorus (5. 28) speaks

of Gallic nobles: "Their yellow hair they stiffen with clay into a sort of mane which they throw backwards."

⁶⁷ Cf. Marian Guptill (now Mrs. James Saltonstall Carpenter), *The Influence of Attic Art on Pergamene Sculpture* (Johns Hopkins University, 1931, unpublished).

⁶⁸ Greatest ht. 0.17 m., W. 0.135 m., depth 0.155 m. W. across eyebrows 0.087 m., of mouth 0.035 m., of bottom 0.07 m., of opening on bottom 0.043 m. A slight break on head's right rear.

12. Bust of Roman Actor (pl. 20, figs. 42-45)⁶⁹ This realistic, unique bust⁷⁰ is of Carrara marble and is said to have been found in the theater of Cicero's town, Tusculum. It certainly is later than Cicero's day and dates from the first century A.D. but it undoubtedly decorated the theater. It represents with extreme realism and caricature some Roman actor. His mouth is wide open, the nostrils wide, the eyes deep sunk with hollow, circular pupils in which precious stones were inserted, with very heavy eyebrows, and the forehead wrinkled. The actor's hair is done in similar spirals on top and a high row of loops in front. On either side are two long braids showing that the actor wore a long wig. The back is plain and rough, proving that the bust was placed against a wall or in a niche, where the rear was not meant to be seen.

13. Head probably of Augustus (pl. 21, figs. 46-47).⁷¹ Acquired from Barone Franchetti of Venice, December 1953. Found in 1953 near Venice. Carrara marble. It was broken vertically into two sections now put together. The nose is slightly broken. The head probably belonged to a statue rather than a bust, because of the long neck of which 0.10 m. is preserved below the right ear, and 0.16 m. below the left ear. With the pupils incised it must be a second century or even later head, but the hair and features resemble those in busts and statues of Augustus.

14. Bust of philosopher (pl. 21, fig. 48).⁷² Parian marble. Found near Naples in 1953. Acquired from Salvatore Affaidate, Via Constantinopoli of Naples in Feb. 1934. Bottom rounded and rough. It is difficult to identify the type but it seems to be a second century B.C. Roman copy of some famous Greek.

⁶⁹ Greatest ht. 0.42 m., W. 0.32 m., depth 0.20 m., Height of head 0.24 m. Rectangular base 0.09 m. high. W. of mouth 0.075 m., ht. of opening 0.035 m., depth 0.04 m. Depth of eyes 0.03 m. W. of bottom of nose 0.07 m. Damaged, and a straight flat vertical break on r. side (0.26 m. high).

⁷⁰ No parallel in Bieber, *The History of the Greek and Roman Theater*.

⁷¹ Ht. 0.33 m. Depth 0.23 m., Greatest Th. 0.21 m. at front. Ears 0.08 m. high. Eyes 0.04 m. long. Chin 0.04 m. wide at bottom.

⁷² Ht. 0.38 m. Th. 0.17 m. W. across eyes 0.05 m. Mouth 0.042 m. wide. Opening of mouth 0.015 m.

⁷³ Cf. Robinson, *Sappho and her Influence*, pl. 2. Cf. Lippold, *Griechische Porträt-Statuen*, p. 72.

⁷⁴ Greatest ht. 0.36 m., of neck 0.08 m. from chin to bottom

15. Bust of Vitellius (pl. 22, fig. 49). The two best busts I had in my collection, those of Pittacus and Hermachus⁷⁵ are now in Budapest but I still have two important well-preserved Roman busts of Italian marble which were said to have been found in Poland near Warsaw and were brought to Baltimore from London (?) by a Polish refugee. One⁷⁴ is of Vitellius, the emperor who succeeded Galba (June, A.D. 68—Jan., 69), Otho (Jan.-March, 69). He ruled only a short time, April-Dec., 69, and was succeeded by Vespasian whose busts show a similar thick neck and big face. The type is well represented⁷⁵ by numerous examples. The hair is done in spirals and well arranged, leaving a triangular projection over the forehead. The ears are carefully carved. The forehead is high with a horizontal depression in the middle. The eyebrows are heavy with slanting lines. The eyes are keen with pupils which were added in Renaissance days. The nose is long, with depressed lines on either side at the top. The mouth is wide, the upper lip longer than the lower. The neck has rolls of flesh, showing an epoch of epicureanism and hedonism. The excellent execution, the emotion, the powerful, pompous portrayal of character, and the realism make me feel that this bust and the next which is of similar style, dimensions, material, and technique, same kind of drill holes, and same pupils, were made by Greek sculptors. These two genial sculptures executed with precision show especially well the characteristics of the beginning of the decadence of the Roman Empire, when even philosophers were attracted by the licentiousness and beauty of the easy life and lived in a perpetual state of struggle with their inner selves. In those days seduction and sociability were emphasized as a fine art in Rome which now gave free reign to sensuous pleasure. It has been suggested that this clean shaven bust portrayed Marcus

of bust. Greatest W. 0.22 m., depth 0.24 m. W. at bottom 0.19 m. Ht. of ears 0.07 m. Greatest ht. of bare forehead above eyebrows 0.08 m. W. of mouth 0.05 m., of nose at bottom 0.04 m., at top 0.02 m. I am a little suspicious of the busts having been found recently. There is a rumor that while genuine (except for the pupils of the eyes), they were excavated in Renaissance times and formed part of the collection of Pope Julius II, that they were being taken to Marseilles by the barque, Napoli, during the Napoleonic Wars, and that an English man-of-war captured the boat and brought the sculptures to London. There they were sold to an English family. But I can find no trace of them in records of Rzeiby or Foubert in London.

⁷⁵ Bernoulli, *Roemische Ikonographie*, 2. 2. 12-20. My head differs in having more curly hair. It resembles the head on a coin of Vitellius in my collection.

Lucullus (and such is the modern pencilled inscription seen in the photograph), but there can be no doubt that Vitellius is the subject.

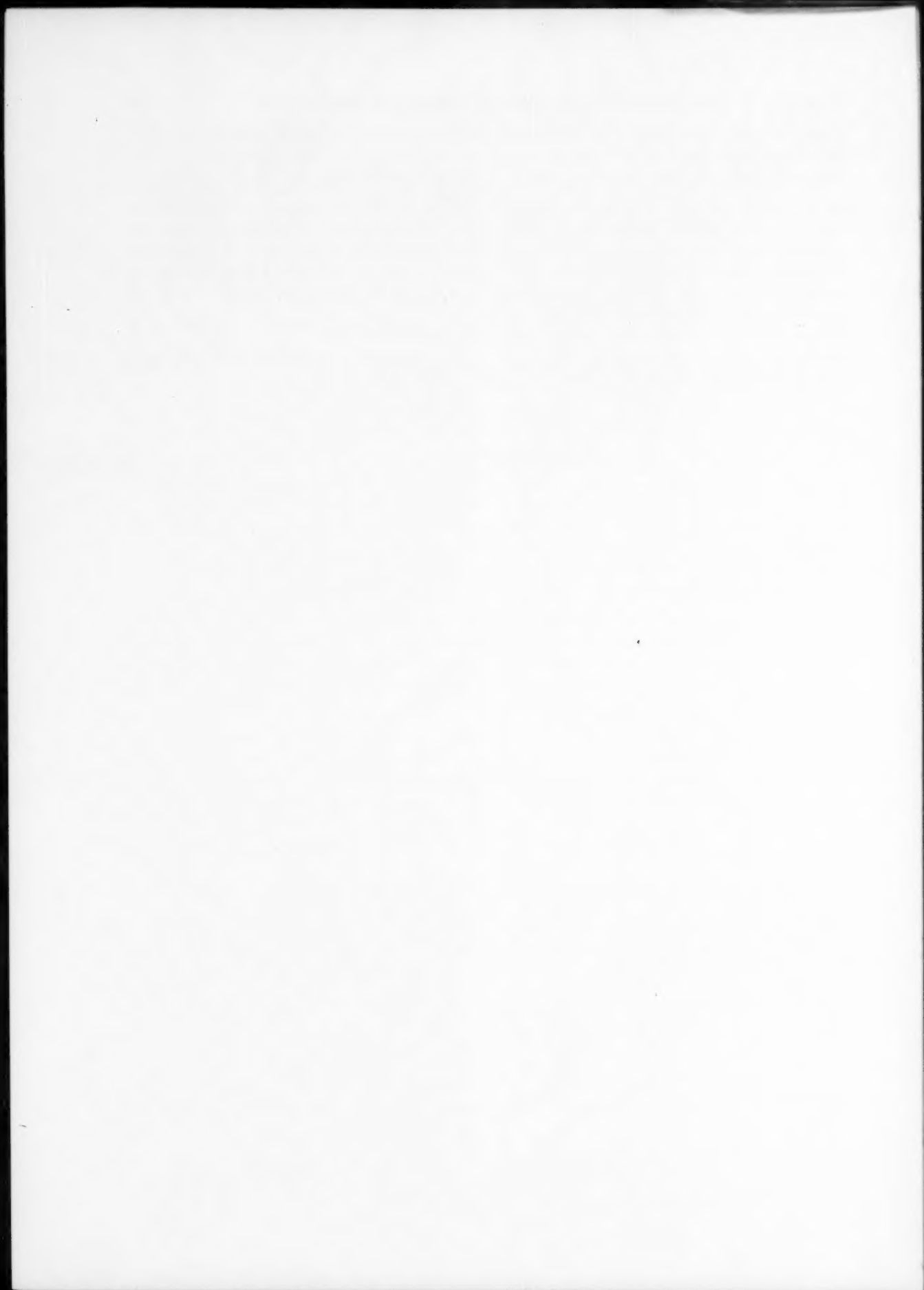
16. Bust of a Roman (pl. 22, fig. 50).⁷⁶ This is another excellent portrait bust, but with mustache and beard. The neck is nicely carved, the nose is long and the eyes are small but keen and have a look of reflection. The eyebrows have slanting lines. The forehead is low but the crown of the head well rounded and high. The hair is arranged in beauti-

⁷⁶ Greatest ht. 0.036 m. W. 0.24 m. top; depth of upper part of head 0.22 m. From chin to bottom of bust 0.11 m. Ht.

ful, curving S-shaped strands with a slight open space on either side of four double divided locks in the middle of the forehead. The philosophical expression reminds one of Marcus Aurelius and the bust may date from his time but it is not Aurelius. It is, however, a powerful portrait, and some day some scholar may identify this not unimportant unknown man. It can hardly be Sulla Junior as the modern pencilled inscription on the bust says.

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of ears 0.05 m., W. of mouth 0.04 m., of nose from 0.042 at bottom to 0.02 m. at top.



The Palace of Nestor

Excavations of 1954

CARL W. BLEGEN

PLATES 23-28

DURING THE SUMMER of 1954 the American section of the joint Helleno-American expedition, which has undertaken an archaeological exploration of Western Messenia, resumed its task of uncovering the Mycenaean palace at Epano Englianos.¹ The enterprise was again made possible, under the sponsorship of the University of Cincinnati, through the financial support generously accorded by Professor and Mrs. W. T. Semple of Cincinnati. The campaign lasted from April 30 to July 31. Four weeks in May were devoted to the cleaning and study of the fragments of painted plaster found in the seasons of 1952 and 1953 and to the sorting and mending of the accumulated pottery. Actual digging was begun May 31 and was continued through June and July.

Members of the staff, who assisted for longer or shorter periods and to whom my grateful thanks are due, were Miss Marion Rawson, Mrs. Blegen and Mrs. Hill, Messrs. Watson Smith, Demetrios Theocharis, Piet de Jong, Robert J. Buck, Emmett L. Bennett, Jr., and Lord William Taylour. Demetrios Theocharis drew the accompanying plan of the palace. We are much indebted to Dr. Charalambos Panagopoulos, President of the Community of Chora, and his fellow citizens for countless courtesies shown us and especially for making available to us as living quarters a hospital no longer in use in an attractive garden in the upper part of the village. It is a pleasure also to acknowledge valuable help received from John L. Caskey, Director of the American School, Homer Thompson, Director of the Agora Excavations, Miss Alison Frantz, who gave us the benefit of the developing and printing facilities of the Agora photographic atelier, and from Professor Sp. Marinatos of the University of Athens, my colleague in the joint Helleno-American Messenian expedition.

Watson Smith supervised, and himself took an active part in, the cleaning of the frescoes. Through the good will of the Greek archaeological officials, and especially with the generous cooperation of Dr.

N. Platon, Director of the Museum in Herakleion, the services of Zacharias Kanakis, chief technician of the Herakleion Museum, were this year, as last, put at our disposal for a period of six weeks. Thanks to his and Mr. Smith's devotion and industry the whole extensive collection of material from preceding campaigns was carefully examined, and all pieces that revealed traces of painted decoration received special attention. In many instances the hard accretion that in most examples covered the surface yielded to treatment, and the original colors emerged to view in a relatively good state of preservation. In general, however, the painted plaster had been broken into innumerable small fragments, most of which were sadly discolored and blackened from the effect of the fire that destroyed the palace. A patient search for joins and a long intensive study are still required before the material can be adequately evaluated. Meantime an auspicious beginning has already been made, and Mr. Piet de Jong, whose discerning, trained eye has recognized elements of several interesting scenes, has recorded many pieces in water-color drawings.

Some of the compositions represent human figures, both men and women, chiefly in a miniature style; in others we have semi-realistic floral motives along with land quadrupeds and marine creatures, and there are likewise abstract designs. The human figures are in some instances seated, in others standing or walking in processions. On at least two fragments we can recognize helmeted warriors engaged in combat, apparently duels, with swords. A triple shrine, almost identical with the one familiar from Knossos, belongs to a scene in miniature.

The work of salvage will be continued next season when the mass of fresh material recovered in 1954 will also have to be dealt with. It has become clear that the palace at Englianos is notable for the abundant remains of wall paintings it yields: every room of any consequence seems to have been gaily decorated in this respect.

In the cleaning and mending of the pottery re-

¹ See *A.J.A.* 57 (1953) 59-64; 58 (1954) 27-32.

covered in 1953 considerable progress may be reported. No attempt has been made to sort out and put together large numbers of the 2853 kylixes found in Pantry No. 2; but many pots of widely diverse sizes and shapes from Rooms 3 and 4 have been in whole or in part reconstructed, and they give a good idea of the extensive repertory of types here represented.

In the digging season concluded at the end of July 1954 much debris was cleared away in four different parts of the palace. Everywhere, as in previous campaigns, vivid evidence of devastation by fire was brought to light. The abundant, not to say extravagant, use of massive wooden timbers in the construction of the stone walls provided almost unlimited fuel for the flames, and the entire structure was reduced to a heap of crumbling ruins in a conflagration hot enough to calcine stone and even to melt ornaments of gold. Considering the adverse chances of survival we can only be philosophically grateful for the few objects of various kinds that somehow escaped total destruction.

On the southeastern slope of the hill, almost directly in line with the megaron, where supervision of operations was entrusted to Demetrios Theocharis, we discovered what was clearly the main entrance to the palace. It is a well-planned propylon (pl. 23, fig. 1), which had one central opening in the door-wall, while in each façade, outer and inner, a single axial column stood between antae. What seems to have been a great court lay outside the gateway, its stucco floor sloping appreciably downward toward the southeast. How far it once extended has not yet been determined. In the other direction, toward the northwest, the propylon opened on a small inner stucco-paved court, ca. 7 m. deep from front to back, on which the portico of the megaron fronted.

The propylon, too, had a good stucco floor. The wooden columns, some charred remains of which were recognized, had been set on substantial circular stone bases. Around the lower end of each shaft was a decorative ring or moulding of stucco, the flat top of which was coated with red paint. Five or six successive layers of stucco, each retaining traces of similar paint, indicate that the plaster base-ring about each column was often renewed (pl. 23, fig. 2). Impressions around the interior circumference of the ring make it clear that the columns were delicately fluted, each bearing some 60 narrow vertical channels. The gate-wall and the

northeastern lateral wall of the propylon likewise retain many successive coats of plaster bearing remains of frescoes.

The outer portico of the gateway has a width of approximately 6.50 m. and a depth from front to back of about 4.50 m. The inner portico was equally wide, but somewhat shallower. Precise dimensions are difficult to ascertain, since the entire southwestern lateral wall of the structure is missing, having been removed by marauders in search of stone. The outer anta of the northeastern wall was also demolished and carried away, presumably by the same plunderers. Nevertheless enough is preserved to make the plan certain.

The façade formed by a single column set between antae presents a feature hitherto unexemplified in Mycenaean gateways, which at Mycenae and Tiryns regularly display a distyle scheme. Whether or not this monostyle novelty is to be attributed to active Minoan influence in the 13th century is a matter open to discussion. It seems to me that it can just as plausibly be explained as springing from the ingenuity and creative ability of the unknown Mycenaean architect who must have designed this mainland palace at Englianos, and who was obviously resourceful and skillful in his profession. He did not align the axis of the propylon with that of the megaron, but it surely is not by chance alone that the columns of the gateway fall directly in the line of the southwestern column of the portico and the two columns in the southwestern side of the Throne Room. The whole palace bears the unmistakable stamp of unity in its planning (plan, pl. 24).

Scattered about here and there, in and around the propylon, through an area more than 15 m. long were found many badly damaged and disconnected fragments of a silver cup that had once borne decoration in gold inlay. It seems to have been almost a duplicate of a broad, shallow cup of the same metal, which was discovered by Tsountas in a chamber tomb at Mycenae.² Like the Mycenaean example, our cup was decorated in an upper zone, bordered above and below by an elegant foliate spray in gold, with a series of bearded human heads, represented in profile and delicately made of gold and niello fixed on bronze. Some nine or ten heads (pl. 23, fig. 3) and parts of heads have been recovered along with many pieces of the foliate spray and bits of the silver rim and handle. In the sadly impaired state of the material it is doubtful if the cup can be satisfactorily recon-

² National Museum No. 2489, 'Eφ. 'Αρχ. (1888) pl. 7.

structed. Many other bits of gold, damaged and in some instances melted by the fire, were also collected together with two stone amulets of variegated onyx (pl. 25, fig. 4). The floor along the southwestern side of the propylon yielded, furthermore, a few fragments of inscribed clay tablets, and several others were discovered in the loose earth filling the "chasm" which was left by the ruthless pillagers who dismantled the southwestern wall of the gateway. A mass of fallen plaster showing remnants of frescoes was likewise salvaged (pl. 25, fig. 5).

Farther to the southwest, beyond the Archives Room, in a second area of digging which was carried out under the direction of Mrs. Blegen and—after her departure—of Emmett L. Bennett, parts of three rooms were exposed. The walls, much injured by fire, do not exactly follow the orientation of the propylon and the megaron, and the precise relation of this quarter to the rest of the palace has not yet been ascertained. Room 62, approximately 7 m. long and 3 m. wide, contained a great mass of pottery, which lay in heaps along all four sides of the apartment. These vessels had apparently been stacked and stored on wooden shelves that ran along the walls, and they must have fallen when their support was consumed in the fire. Most of the pots were broken, but perhaps a score had survived intact. The total number that could be counted exceeded 550, and more than 20 different shapes are represented, ranging from small saucers, shallow cups, kylixes, kraters, deep jars, and stirrup vases to coarse cooking pots, spouted jugs, and scoops (pl. 25, fig. 6). The distribution of the various types in the heaps demonstrated that this "pantry" had been arranged in a neat and orderly manner, vessels of the same shape being kept together on the shelves. Most of the pots are of plain, undecorated ware, but several bear painted designs in a good style. A strip along the northeastern wall of the room has not yet been excavated; it will undoubtedly produce a further stock of vases. From the floor of Room 62 came two bronze arrow heads, one tiny and delicate, the other large and sturdy (pl. 25, fig. 7).

Toward the southeastern end of the pantry the clay floor was found to have subsided into a deep depression: investigation revealed that the cover slabs of an underlying drain had collapsed. The drain, which followed an angular course, was traced for a short distance in two directions, to the southeast and the southwest. It was filled with earth that contained a large amount of broken pottery. Many

painted pieces came to light that look somewhat earlier than the fabrics that generally appear on the floors of the palace, although there are very few sherds that go back to a stage preceding Late Helladic III B. Among the other objects that had accumulated in the drain are nine diminutive arrow-points of bronze (pl. 25, fig. 8), part of a lentoid seal of steatite, several whorls or buttons of steatite and of terracotta, and many small fragments of bronze.

To the northwest of the pantry is a chamber or a wide passage which we have called Room 63. Only a small part of it has been excavated. A broad doorway with two large stone bases for the door jambs was exposed, but whither it leads we cannot yet say. From the stucco floor were collected many small bits of painted plaster, presumably fallen from above. A small ivory disk with carved decoration is the only other object worthy of mention.

Part of an adjoining room (61) to the northeast was exposed. Many large squared blocks of poros lay scattered about on the stucco floor. They had apparently fallen from a massive wall which once separated Room 61 from the Archives Room and its annex. All the stones that survived and remained in their original position after the fire were later systematically abstracted by seekers of building material, and only the foundations of small stones on which the big blocks had been laid are now left in place. This wall was evidently one of the major walls of the palace. Its course can be traced more than 45 m. to the northwestward, where for a long distance it formed the northeastern boundary of Court H, which was excavated in 1953. The wall seems also to have marked the southwestern limit of the largest constituent unit of the palace, the section comprising the megaron together with the rooms surrounding it. Pending further digging and study, it is still too early to draw safe conclusions regarding the chronological relationship of the different quarters that make up the whole building, and we may turn back to our modest Room 61.

Regarding the original size and purpose of the latter little can yet be said. The stucco floor sagged deeply toward the center, perhaps by design, for a small, rectangular opening here descended into a narrow drain. It has not been explored, but it was probably a branch of the larger drain mentioned above. This provision for carrying off water might be taken to imply that we are dealing with a bathroom, but supporting evidence is scanty, though the

shattered fragments of two or three deep water jars were found on the floor. Other objects recovered are of little significance save for fragments of two gold inlaid heads. They certainly belong to the decoration of the silver cup, most remnants of which lay widely scattered in the propylon. These pieces had no connection with Room 61, however, for they came to light in disturbed surface soil.

The trench filled with loose earth which marked the course of the great wall that had been removed was traced southeastward between Room 61 and the Archives complex to a point about opposite the exterior façade of the propylon; here the wall evidently turned to the northeast in a right angle and extended to the gateway. It is not impossible that a doorway opening through the wall gave access from the outer court to the Archives annex, which may conceivably have served as the office of the accountants who kept their records on the clay tablets. Alternatively a door could have led through the southwest wall of the outer portico of the propylon into the annex. The loose debris in the despoilers' trench in any event yielded a fair number of additional clay documents and fragments, all of the bookkeeping type.

Immediately outside the front of the palace, in the exterior court, the floor of stucco continues southeastward until it intersects the descending surface of the ground. Beyond this point no traces of it are left. Not far from the conjectured angle of the ashlar wall a slab of poros was found embedded in a hollow of the floor. Three symmetrically arranged, round holes, neatly cut through the stone, provided no doubt for carrying off rain water into a large underlying drain. Dispersed here and there in the hollow were many fragments of a large, circular disk, perhaps a table top, made of variegated marble. The pieces recovered constitute perhaps one half of the whole. The table had a diameter of nearly 0.50 m. and was probably supported on three legs. The disk had a carved design along its edges, and its upper surface bore a simple, inlaid decoration composed of small, circular insets of red stone, arranged in groups of one, two or three.

In a third area of investigation conducted under the supervision of Robert J. Buck, progress was made in uncovering the parts of the palace that lie directly to the southwest of the vestibule and the portico of the megaron (pl. 26, fig. 9). It has not yet been possible to determine with certainty whether or not a door opened into this complex

from the vestibule, for this whole quarter has suffered more than any other from the ravaging effects of the fire and from the more recent activities of the vandals who tore out so much stone from the site. The walls have in many places been stripped to their foundations, threshold blocks have been extracted, and even the floors have been mutilated. All that can yet be said is that there may have been a door, as at Tiryns; and opposite its presumable position and across a narrow corridor, there was a stairway to an upper floor. Only small parts of the two lowest stone steps have survived *in situ*. The stairway apparently ascended southwestward in nine steps to a landing, turned northwestward in three further steps to a second landing, and then northeastward in a final flight of nine steps to the floor level of the upper story. Altogether there were probably 21 steps with an average rise of 0.155 m., the total height reaching 3.255 m. or somewhat more than 10½ feet. The stairway seems to have been built directly over an earlier stucco floor, and there is now ample other evidence to suggest that the palace passed through two or three phases of alteration and remodeling.

To the southeast of the stairway is a rectangular room about 5 m. long by 4 m. wide. It has a good stucco floor on which were found a great many fragments of painted plaster and two or three small nests of pots in a badly shattered state. Room 21, as it has been called, could be entered through a door from the corridor in front of the stairway, and also from the southeast, where an open passage from the court of the megaron rounded the anta of the portico. The anta itself is missing, its stones having been taken away by looters, but the stucco floor continues from the court into a small lobby from which one door led into Room 21 and another into an adjacent room that has not yet been excavated.

No direct way from the megaron suite to the pantries discovered in 1953 has yet been found, but they may have been accessible through the passage around the anta and the room that still awaits investigation.

The fourth and largest area cleared in 1954, some 11 m. wide and more than 30 m. long, comprises the northeast section of the palace. It was excavated under the direction of Marion Rawson. This quarter was accessible from the megaron through a proper doorway in the northeastern side of the vestibule (pl. 26, fig. 9). The door opened on a long corridor (pl. 26, fig. 10), ca. 1.60 m. wide,

running from southeast to northwest alongside the Throne Room and its antechambers. It has been exposed to a length of more than 24 m., but its southeastern end has not yet been reached.

Across the corridor, almost directly opposite the doorway from the vestibule, is a stairway (pl. 26, fig. 11), ca. 1.50 m. broad, eight stone steps of which still remain *in situ*. They rise in a continuous straight flight toward the northeast and, allowing for a landing at the upper end, we calculate that there was room, in the available length of 6.50 m., for 21 steps, each ca. 0.31 m. deep and 0.155 m. high. The total rise from the ground floor to the floor above would then be 3.255 m., the same as that similarly estimated for the stair on the other side of the megaron. The upper story over the megaron itself may well have had its floor at a somewhat higher level, if the Throne Room, as seems likely, was designed to have a ceiling suitably lofty to correspond with its great dimensions. The central core of the palace presumably also had a higher roof-terrace than the lateral wings to right and left.

Some 4 m. northwest of the staircase and beyond a doorway, the corridor gave access on the right to a small lobby that opened into rooms to the northwest, northeast and southeast. These rooms (pl. 27, fig. 12), five in number, were for the most part interconnected by doorways, one of which, between Rooms 53 and 54, had in a phase of remodeling been closed by a clay barrier.

Room 56, a small compartment under the upper end of the stairway, contained some fragments of fallen stone steps and, in its inner south corner, a single large krater-like vessel which stood on the floor. Room 54, alongside and just northwest of the stairway, was disappointingly bare of remains, but the rubbish filling it produced a good many fragments of ivory, some of them bearing carved decoration, and of plaster, no doubt fallen from above. Room 53 was likewise almost empty of material furnishings; in the earth and debris filling it, however, were found great numbers of fragments of ivory in various sizes and shapes. Some of these pieces, smoked to a jet black, are hard and relatively well preserved; others, burned to an ashy gray, are soft and crumble when touched. Many still retain tantalizing traces of delicately carved decoration. It is clear that the apartment above, from which this material had obviously fallen, was the domain of a lady of the royal family whose dressing table was well stocked with receptacles,

toilet articles, and ornaments of admirable workmanship in ivory.

Room 48, which could be entered only through a doorway from Room 53, was evidently a store-room. It contained a dozen pithoi of moderate sizes that had been set against the northwestern, southwestern, and southeastern walls, with large, flat, crude bricks wedged about their bottoms to hold them in place. Many smaller pots, for the most part jars, jugs, and stirrup vases, and all badly shattered, came to light here and there beside and under the pithoi and in other parts of the room. Some of them are of plain ware, but several are notable for their painted decoration. One seems to carry a large design of octopuses, another an intricate pattern of spirals, and at least one of the pithoi was handsomely painted on its broad, flat rim as well as on its body. Room 48 had suffered especially severe damage from the fire and presented a remarkable picture of upheaval and ruin (pl. 27, fig. 13). Perhaps the pithoi had contained oil to feed the flames. In the collapse of the upper story much plaster had fallen from above and the walls of the room itself had contributed their quota. Some pieces show traces of wall paintings, and all the material will have to be cleaned and studied. Two fragments of inscribed tablets and an inscribed label were also recovered along with some small bits of gold.

The long corridor continuing ca. 10 m. northwestward through another doorway beyond the lobby mentioned, communicated with a transverse passage running toward the northeast (pl. 27, fig. 12). From the latter, a door opened into a large rectangular magazine in what was apparently the northern corner of the palace. It is a large room, about 7 m. long by 6 m. wide, which had a row of four interior posts or columns that rested on flat blocks of quartzite to support the ceiling and roof. Around the four sides of the room were ranged 16 pithoi of fairly large size (pl. 27, fig. 14) set in cavities hollowed out in the earth floor. What they originally contained has not been determined, but it was probably of liquid nature: oil, wine, or water. This room lies close to the northwestern edge of the hill; the surface of the ground sinks considerably as it approaches the precipitous brow, and in consequence plowing has cut off the tops of all the pithoi in the magazine.

The long corridor goes on nearly 2 m. beyond the branch toward the northeast before it ends: yet another doorway here gave access toward the south-

west into a magazine that lies directly behind the Throne Room. It has not yet been excavated, but a trial trench in 1952 revealed that it contains many pithoi standing in a row against each lateral wall.

The outer limit of the northeastern wing of the palace is formed by the massive exterior wall of the building (pl. 28, fig. 15). By a fortunate chance, though badly damaged during and after the great fire, this wall somehow escaped the attention of the plunderers who have left so widespread havoc elsewhere on the site. The wall, ca. 1.30 m. thick, was built with its outer half constructed of fine, squared blocks of poros, laid in a fairly regular ashlar style that shows a careful breaking of joints, while the inner half and backing was made of unworked stones, or rubble. The technique is thus the same as that seen in the northeastern lateral wall of court H, which was excavated in 1953. These two walls, in fact, match each other closely, since they clearly mark the northeastern and southeastern sides of the great rectangle that encloses the megaron and constitutes the core of the palace.

The outer face of the northeastern exterior wall, exposed through a length of some 25 m., is preserved for the most part in two courses still lying in place. The top of the second course from the bottom is provided at fairly regular intervals with neatly cut dowel holes, certainly intended for the fastening of heavy, horizontal wooden beams. Outside the wall an imposing array of fallen stones and large blocks was brought to light. The small stones which came from the inner backing of the wall were found on top (pl. 28, fig. 16), the large blocks from the outer face, underneath (pl. 28, fig. 17). In the northwestern part of the area the latter lay in relatively good order as they had fallen, and it is obvious that a considerable section of the wall toppled over to the northeast in one piece. In some places it is possible to count six or seven successive courses of blocks. At least one of these courses had dowel holes for another horizontal timber. The height of the poros wall, which presumably rose to the floor level of the upper story, may consequently be calculated as corresponding to eight courses of squared blocks plus two or three wooden beams. The blocks vary in height from course to course, those at the bottom being appreciably higher than those above. Although the exact average has not yet been accurately determined, the total exterior height must have been close to 3.40 m., which is

not far from the interior height as calculated from the stairways.

The somewhat curious system of jointing applied in putting these poros blocks together is worthy of attention. Each stone, when laid, was neatly fitted against its neighbors at the outer face, but behind the latter is an open splaying joint, the end of each block having been cut away obliquely. This V-shaped space was apparently filled with clay and small stones, but the method was certainly not one to give the walls enduring cohesion and stability. The same system has been observed in Minoan buildings in Crete; it was perhaps seen there and borrowed by the Mycenaean.

The walls of the upper story were surely built of crude brick, disintegrated material of which was encountered in abundance almost everywhere. In all the preserved walls of rubble, or rough stone, we find at intervals of little more than 1 m. vertical slots for thick upright wooden beams. Similar horizontal slots occur at approximately like intervals, and struts were regularly inserted, running through from one face of the wall to the other. The same type of construction was undoubtedly used in building the upper story with crude brick; and wooden timbers must also have been the chief material employed for the great expanses of flattish roof-terraces in almost all parts of the palace.

The provision of a massive wooden framework even for walls of stone may perhaps reflect an endeavor to devise an antisismic method of construction in a region where earthquakes frequently occur. Certainly the skeleton of well-trussed timbers would tend to hold the stones of a wall together and prevent their shifting during a quake. But in the long run the chief practical effect of the presence of so much wood was to ensure the ultimate destruction of the whole building by fire.

The campaign of 1954 yielded no fresh evidence to shed more specific light on the identification of the palace at Epáno Englianos. Some 50 further inscribed tablets and fragments of tablets were recovered. When these and their predecessors from previous seasons have been fully read names or other indications may appear that will decisively settle the question. Meanwhile we see no reason to change our belief that the establishment is the long lost ancient Pylos and that the palace was actually the home of the Neleid family and King Nestor.

Regarding the palace itself, however, many prob-

lems of various kinds—architectural, chronological and others—are coming more sharply into focus. It is clear that several phases are represented by various changes and modifications in the structure; and it is possible that we may ultimately be able to

differentiate earlier from later elements even though the whole life of the building seems to fall into the not very long stage called Late Helladic III B.

UNIVERSITY OF CINCINNATI



Six Early Greek Animals

DOROTHY KENT HILL

PLATES 29-30

THE SIX BRONZE ANIMALS illustrated here for the first time are recent acquisitions of the Walters Art Gallery, purchased during 1953 and 1954 from several sources and reputed in most cases to have been for a long time in European or American private collections. They do not form a compact group but exemplify various phases of geometric and post-geometric art. I shall endeavor to date them and to place them in the accepted series, although limited material and limited data have conspired to keep the chronological system inexact. Because of the inadequacies of the classification and the dearth of published examples upon which a classification must depend, it seems desirable to announce these items at once.

1. Let us begin with a small horse-on-stand (pl. 29, fig. 1).¹ The wide-spaced forelegs, the uncertain bend of the knees, and the proportions, all suggest that it is a mere colt. The head is small and bird-like and devoid of all modelling except for the sudden offset of the jawbone from the neck. This neck is long and narrow and it is sharpened toward the back to suggest a mane. The body is short in proportion to the legs and neck, and is solid and round for its entire length, tapering gradually in diameter. The legs and tail are also round in cross section or, shall we say, they are like large wires. Knee joints are gently indicated; the forelegs seem bowed forward. The tail joins the base, which is unperforated and rectangular without any special extension for the tail. The under surface of the base has a raised border and four wavy lines in relief (pl. 29, fig. 2) while the upper surface has a rare ornament: side borders of zigzags, cut in a rocking pattern (pl. 29, fig. 3) with a curved chisel.² I know of only one other stand with this pattern: the stand of an un-

identifiable animal from Thebes.³ Payne believed that all such stands of animals were used as seals and he showed that their manufacture ceased at the moment when ivory seals became fashionable.⁴ Our horse would indeed serve admirably as a seal, but since no impressions of such stamp seals have been preserved we should reserve our judgment about the use of the stands.

This horse or colt cannot be added as a member to any of the stylistic groups that have been established, but it may be associated with some. Its bird-like head reminds one of a colt in Basel, which has a stiff, vertical mane and almost no ears and suggests how our colt may have originally appeared. Bloesch⁵ compared the Basel horse with one from Perachora⁶ which shares its soft modelling in contrast to the generally more angular horses from Olympia. Actually, the legs of the Perachora horse are more sharply articulated than ours, but they are wiry, not strap-formed like the Basel colt's, and the head is longer and less pointed. There is a resemblance in the form and slant of the body and in the modelling generally. In this last respect one might also compare a horse in the Walker Art Building of Bowdoin College, though it is much longer of leg. A horse recently acquired by the Fogg Art Museum⁷ is simpler, with longer head, shorter neck, straight body and legs which show no joints; Hanfmann connects it with two Olympia horses in Berlin⁸ and one from the Athenian Acropolis,⁹ and despite what has been said about the angular quality of Olympia horses, these which Hanfmann groups show some points of resemblance to the new Walters horse. To anticipate our discussion below, all the horses which we have mentioned in this paragraph belong early in the history of horses-on-stands.

¹ Height, .07 m.; length of base, .053 m. Light green powdery surface, covered in certain areas with brown; extensively pitted, especially around head. Inv. 54.2377.

² Miss Benton says such a chisel must be steel: *JHS* LXXII (1952) 119. This pattern is the "Tremolierstich" of Furtwängler and Neugebauer.

³ Neugebauer, *Katalog der statuarischen Bronzen im Antiquarium zu Berlin I* (1931) 6, no. 8, fig. 2. See also a delicate dot border, Waldstein, *Argive Heraeum II* (1905) pl. LXXIV, 17.

⁴ Payne and others, *Perachora* (1940) 125.

⁵ Bloesch, *Antike Kunst in der Schweiz* (1943) 22, no. 2, pl. 2.

⁶ *Perachora*, pl. 37, 8; *AJA* 37 (1933) pl. XXV, 1.

⁷ *AJA* 58 (1954) 226, pl. 38, fig. 9. It seems to me like Miss Benton's E 190 from Ithaca; see *BSA* XLVIII (1953) 348, pl. 65.

⁸ Neugebauer, *op.cit.* 23f., nos. 34, 35, with parallels there assembled.

⁹ De Ridder, *Catalogue des bronzes trouvés sur l'acropole d'Athènes* (Bibliothèque des Écoles françaises d'Athènes et de Rome, 74) 175, no. 482.

2. Second, let us consider the fawn (pl. 29, fig. 4).¹⁰ It has a short body, very long slanting legs, and a perky little tail. The head is long and cylindrical, without any indication of details. Long ears rise straight upward and there are no horns. At the waist the body achieves a solid, triangular form; elsewhere it is of strap construction, even its rear being open. Between the legs the surface is rough and a muddy deposit adheres because the cast surface was never hand finished to smoothness, but the outer surface is beautifully shiny. The triangular flanks and shoulders taper into small legs which are strap-like but diminish to square as they approach the stand (compare the legs of the Basel colt, mentioned above). Four little projections to back and front indicate knees and hocks. The stand is rectangular, cast together with the animal, and perforated by two rows of six triangular openings each. Beneath, it has a frame and two lengthwise parallel lines, all in relief.

Deer are fairly common, and it happens that a number of votive ones came from the excavations at Tegea.¹¹ The fawn, and I take ours to be a fawn, not a mature deer, is rare except in groups with the mother. There is a single instance of the fawn standing by itself, excavated at Sparta, comparable to ours though of somewhat different style and with very small ears.¹² Ears are what our example has, though it would be easy to mistake the upright projections for horns such as replace ears on certain geometric stags, were it not for the fact that in those cases the horns are distinguished by serrated front edges.¹³ Of the nursing groups, one includes a fawn with long legs, cylindrical head and long ears, and thus essentially like ours.¹⁴ The general type of base with triangular perforations is common and it would have made an excellent stamp seal (pl. 29, fig. 5). It happens that two very similar bases have been illustrated, one from a horse found at Olympia,¹⁵ the other supporting a bird, this also from Olympia.¹⁶

¹⁰ Height, 0.68 m.; length of base, .035 m. Tip of right ear broken. Dark green patina, very smooth and polished, with patches of dark brown. Inv. 54.2382.

¹¹ BCH 45 (1921) 346f., with references in note 6, and fig. 6 on p. 345.

¹² *Artemis Orthia*, 197, pl. LXXVI m. and BSA XXVIII (1926-1927) 99, no. 10 and fig. 3 on p. 98.

¹³ AA (1913) 434, no. 1; BCH 45 (1921) 343, fig. 2, no. 13; Furtwängler, *Olympia* IV, 36, nos. 205, 206, pl. XIII.

¹⁴ AA (1899) 136, no. 8; Chase, *Greek and Roman Antiquities. Guide—Boston* (1950) 16, fig. 15; Hampe, *Die Gleichnisse Homers und die Bildkunst seiner Zeit* (1952) pl. 17, fig. 17 a, and p. 36 (comments on the mother deer's borrowed

horns and misplaced ears). Compare the group from Boeotia: *Mém Soc Ant LV* (1895) 160, fig. 1 (published with Boeotian fibulae from the same tomb). Compare also another group in the Louvre: De Ridder, *Bronzes antiques du Louvre*, I, 19, no. 85, pl. 10.

3. As for the next animal (pl. 29, fig. 6), even in its damaged state it can be recognized by its tremendous curling horn as a ram.¹⁷ The head, insofar as it is preserved, lacks details, and it must have been quite small. Neck and legs are long, the body short in proportion to them. Near its middle, this body is perfectly cylindrical. The contrast between small body and spreading flanks is so marked that it may be considered a mannerism. The legs are thin enough to suggest sheet metal, but the type of corrosion is unmistakably that which occurs only on cast bronze. The tail is round, or wire-like, and it reaches almost to the ground, swinging away from the body. The hind feet touch one another, the forelegs are fused at the ends, and it looks as if each pair of legs extended to a sort of spatula tip.

As was remarked by Dugas,¹⁸ sheep were an unusual subject for Greek dedication (except, of course, sheep held in the arms of archaic figurines) and we may well wonder whether this is really anything as rare as a votive ram. Among the bronze rams that exist there is only one that resembles ours; it comes from Delphi.¹⁹ Perdrizet described it as having spatula feet and suggested that it had ornamented the handle of a basin. Probably we should assign both these rams to the ring handles of basin-tripods, to be attached in the same manner as those horses which have spatula feet. Although, so far as I know, no tripod with rams exists, a ram on loan in New York, cast in one with a ring of the correct size, suggests that such an object may yet be found. Against placing the ram on a tripod is the fact that its sheet-like construction (a late characteristic; see below) cannot be paralleled with a tripod horse, but corresponds exactly to horses-on-stands. Also, one must admit that, similar as are the Delphi and Walters rams, their difference in scale, a full centimeter, is against their having come from the same object. Nevertheless, I think it likely that our ram comes from a tripod, and perhaps even from the same tripod as the Delphi ram.

horns and misplaced ears). Compare the group from Boeotia: *Mém Soc Ant LV* (1895) 160, fig. 1 (published with Boeotian fibulae from the same tomb). Compare also another group in the Louvre: De Ridder, *Bronzes antiques du Louvre*, I, 19, no. 85, pl. 10.

¹⁵ Neugebauer, *op.cit.* (*supra* n.3) 24, no. 35, fig. 15.

¹⁶ AA (1935) 95f., no. 15, and fig. 22 in col. 97.

¹⁷ Height, .06 m. Missing: tip of nose, left horn. Dull, green patina with patches of red over green and pits of bright green. Inv. 54.2383.

¹⁸ BCH 45 (1921) 347f.

¹⁹ *Fouilles de Delphes* V (1908) 48, no. 123, fig. 149.

4. In figures 7 and 8 (pl. 30), we illustrate a striking horse, still dramatically effective despite its corroded state and the loss of the left hind leg, which has been restored as perfectly straight (pl. 30, fig. 8).²⁰ On an arched, paper-thin neck sits a tiny head, its long, up-curved ears merging with its jawbone. The mouth is wide open. Slight protuberances on the sides of the head may be indications of eyes, plainer on the right than on the left. The central part of the body is solid and cylindrical; before and behind, the shoulders and thighs develop abruptly, thin and hollow as if they had been cut from sheet metal, though actually they were cast together with the solid main part of the body. The legs are very long and they are round in cross section, like wires; lumps behind the forelegs indicate fetlocks and a lump behind the single original hind leg renders the hock. The fore hoofs are well shaped, the hind hoof not. The hoofs have been glued to the modern base and it has proved impossible to remove the base to study their construction, but there appears to have been no original stand and no spatula ending. The horse must always have been free standing, a simple votive offering.²¹

One stylistically parallel piece is known: a horse that belonged to the Berlin collection and that was classified by Neugebauer among his "mannered geometric."²² Its lower legs are wirish, like those of our horse, and the encircling, decorative lines might conceivably have been duplicated on ours, only to vanish beneath the present heavy corrosion. The delicately shaped hoofs remind one of another Berlin horse.²³ For the open mouth we might compare a horse from Chauchitsa,²⁴ though this feature is anything but rare on geometric horses of all advanced types.

5. The next item is a thickset little creature, hard to recognize as a horse, which it nevertheless must be (pl. 30, fig. 9).²⁵ Its body is solid and substantial, its legs strap-formed but extremely thick, its

tail large and round. The neck is thin, and sharp toward both back and front. The pointed ears stand erect. The nose is a long cylinder, with just a suspicion of enlargement at the tip. There was no stand. Neugebauer's study convinces me that it is a horse, for many such animals can be shown to derive by progressive infinitesimal deviations from the common horses with wiry legs and tail.²⁶

6. The remaining animal is a fairly large bull (pl. 30, fig. 10).²⁷ The central portion alone follows the geometric tradition, being oval in cross section, small, straight and even. All parts of the body are solid and thick, giving absolutely no suggestion of sheet metal construction. The head is long and cylindrical with a slight cut to indicate the mouth, and coarse lumps for eyes. The ears are small, crowded out by the horns; the right ear (on the same side as the horn which has had to be restored) is a small projection back and downward, while the left ear is even smaller. The horn is long and sharp, curled and pointing well forward. The neck is flat and the forelegs and neck are separated by a straight, diagonal cut. Another straight offset, nearly vertical, divides the shoulders from the central portion of the body. The joints of the legs are rather overemphasized. Running lengthwise of each hoof is an incised line. On the basis of just such offsets as this bull shows, Neugebauer assembled a group of ten horses and one bull in the Berlin collection.²⁸ All those of which the provenience is certain came from Olympia, and for the modelling of the horns and head one might compare a rather less angular bull, also from Olympia.²⁹

By themselves, these six animals could not be arranged in a sequence nor could they convey any fair impression of an artistic school or of a period. In view of larger comparative studies, I conclude that they belong chronologically in about the order

²⁰ Height, .091 m. Surface generally dark green, with pits and excrescences of bright green and scraped areas of red; in places, as neck, smooth dark brown. Repaired across upper part of tail. Left hind leg restored. Neck bent toward left. Inv. 54.2378.

²¹ Kunze and Schleif, in *IV. Bericht über die Ausgrabungen in Olympia*, 1940 u. 1941 (1944) 108, discuss horses from chariots. However, a hole for the bit seems to be required in that case.

²² Neugebauer, *op.cit.* (*supra* n. 3) 25f., no. 38, pl. 7.

²³ *Olympia* IV, 37, no. 223, pl. XIV. Cf. also no. 190. In painting, such hoofs occur as early as the prothesis vases from the Dipylon.

²⁴ *JHS* LXXII (1952) 119, fig. 1.

²⁵ Height, .052 m. Dark green patina with pits of bright green. Muddy deposit. Inv. 54.2376.

²⁶ Neugebauer, *op.cit.* 34ff., and especially no. 62, pl. 9; and *Olympia* IV, 33, no. 157, pl. XI and Furtwängler, p. 32, on no. 154.

²⁷ Height, to tip of horn, .072 m. Smooth green patina, with blue, crystalline encrustation in some areas and a certain amount of muddy brown deposit. Right horn restored. Inv. 54.2379.

²⁸ Neugebauer, *op.cit.* 36ff., nos. 70-80. His description of no. 70 is surprisingly applicable to our bull. Cf. also a new horse from Olympia: *IV. Bericht . . . Olympia* pl. 33, 4.

²⁹ Furtwängler, *Olympia* IV, 32, no. 149, pl. XI.

in which they have been presented. A system of dating for horses-on-stands was established by Miss Benton on the basis of an earlier study of horses on tripod handles.³⁰ She divided horses-on-stands into three classes, of which the largest, her Class II, is characterized by a "tension" lacking in earlier horses. This tension, together with generally better articulation, Miss Benton had found on all the horses attached to the ring handles of a certain group of tripods, those structurally distinct because made of hammered sheets of bronze. This class of tripods Miss Benton dates between 750 and 700 B.C., and her Class II of horses-on-stands she dates in the same half century with the quantitative preponderance, I take it, in the century's last quarter. This dating of horses-on-stands receives corroboration from whatever excavational evidence exists, from the presence of Class II horses-on-stands with Proto-Corinthian pottery in a grave at Bari and generally at Sparta and Perachora.³¹ A further substantiating fact, not emphasized by Miss Benton, is that the majority of tripods found at Olympia must be supposed to date after 776 B.C. and the considerable variety in these tripods demands that they be spaced over a fairly long period.

Miss Benton suggests an order of progress within the group of horses on hammered tripod rings,³² to which order, presumably, other horses must roughly correspond. Her order is not quite the same as that suggested by Hampe and Jantzen, who, when publishing an additional example from the newer excavations at Olympia, offered as the latest members of the group two tripod horses with very small heads and long necks, one in Berlin and the other in Athens.³³ Both by Miss Benton and by Hampe and Jantzen a progress is implied from large to small head, from long to short body, from short to long limbs, and from generalized to more

accurate modelling. This development has been clearly stated by Matz, and by him alone; he does not suggest absolute dates.³⁴ Such a proposed development on general lines does not, it should be made clear, preclude a wide variation of contemporary styles, in which Neugebauer believed.

The position of our no. 1 in this series is not immediately obvious. I do not think it can belong to Class I. Lacking an illustration of a horse-on-stand definitely placed by Miss Benton in Class I, I assume that it would resemble one in Berlin, short, stiff-legged, long-nosed, with a backward slant to the forelegs.³⁵ Relative to this Berlin horse, our no. 1 seems late. In line with the development sketched above, it must be later than the first of the Class II horses-on-stands which Miss Benton illustrates, yet enough earlier than some others to allow of the completion of Class II by about the year 700. Therefore, it seems to belong about 725 B.C. or slightly afterwards.

The fawn with stand, no. 2, must be as late as the colt or perhaps later, since its stand is of the common, perforated type and since its outstanding characteristics, strap construction and triangularized profile, do not occur on known tripod horses. Yet this triangularized system is already obvious in one Class II horse-on-stand illustrated by Miss Benton, a horse from Syracuse. The inference is that the style developed after the tripods went out of use but while horses-on-stands of Class II were most popular. The ram, no. 3, which is decidedly "mannered" with a pipe-like waist sharply demarked from shoulders and haunches, very long legs and an exaggerated long neck, must be as late, at the very least. These mannerisms are very common and they occur on horses-on-stands of Benton's Class II, but they do not occur on tripod horses, unless there be a hint in the case of one of the last of the series,

³⁰ S. Benton, "The Dating of Horses on Stands and Spectacle Fibulae in Greece," *JHS* LXX (1950) 16-22; "Evolution of the Tripod-Lebes," *BSA* XXXV (1934-5) 74-130.

³¹ *JHS* LXX (1950) pl. IV, d; *Artemis Orthia*, 197; *Perachora*, 125f. (750-700 B.C.). In this connection Payne calls attention to Orientalizing decoration on the bases of two horses: *Argive Heraeum* II, pl. 72, 12 and pl. 73, 13.

³² *BSA* XXXV (1934-5) 84, note 3 (makes the Berlin horse early).

³³ *Bericht über die Ausgrabungen in Olympia*, *JDal* 52 (1937) 68. For illustrations: Berlin, Inv. 01.9600, Neugebauer, *op.cit.* (*supra* n.3) 29, no. 45, pl. 7; Athens no. 7483, *BSA* XXXV (1934-5) pl. 19, 2 and *Olympia* IV, pl. XXXIII, a. Hampe and Jantzen apparently do not agree that these tripods as a class are the latest tripods with horses but they do not mention horses from later tripods. Kunze, *Neue Meisterwerke griechischer Kunst aus Olympia* (1948) 7ff., speaks of this

as the latest group of geometric tripods and connects the new-found horse with a human figure and a tripod leg. A man holding a tripod ring was found at Olympia in 1953 and has been dated about 700 B.C.: *AJA* 58 (1954) 235; this seems to be from a tripod of the same class as certain male figures from Olympia: *IV. Berichte . . . Olympia*, pls. 38ff.; on 118, Kunze dates the tripods to which they were attached about 700 B.C. The corresponding horses have not been identified. The method of attaching the figures is different from that used on the geometric tripods.

³⁴ Matz, *Geschichte der griechischen Kunst I. Die geometrische und die früharchaische Form* (1950) 75, 80. He is concerned with horses both of bronze and of terra cotta. Miss Benton mentions the increasing length of legs: *BSA* XXXV (1934-5) 85.

³⁵ Neugebauer, *op.cit.* 22, no. 32, pl. 6. It may be more like Ithaca E 190: *BSA* XLVIII (1953) pl. 65.

Athens 7483. Because of the mannerisms, one must place the ram tripod (as I said, a tripod is the only likely explanation of its spatula feet) at the very end of the tripod series, after the horse tripods (cf. note 33). All in all, we should date the fawn and the ram within the last quarter of the eighth century B.C.

Our no. 4 is a striking piece which may be precisely datable at some future time, but which at present is still a trifle uncertain. It is of a distinctive style, belonging to a sub-group of Neugebauer's "mannered" geometric. Neugebauer was at pains to state that his stylistic groups were not chronologically exclusive and he did not date any mannered animals. More recently, G. Bruns, in dealing especially with the finest of the mannered horses, that from the Berlin Museum, dated the mannered style "gegen 700."³⁶ Our no. 4 seems to belong in Miss Benton's system between a Class II horse-on-stand from Ithaca (last quarter of the eighth century is the date implied) and her Chalcitisa horse (she says about 700) on the one hand, and, on the other hand, the mannered, short-legged and long-shouldered horse which she chose to exemplify Class III (date implied, first quarter of the seventh century).³⁷ So, slightly after 700 would be a sensible date for our no. 4.

As for no. 5, fig. 9, which I have called a horse, it belongs within the seventh century. Despite his usual caution, Neugebauer recognized "terra-cotta style" animals, and even their predecessors of more wiry construction, as transitional from the geometric to the archaic style.³⁸ The bull, no. 6, fig. 10, with its cut shoulders suggestive of wood carving, I should be hard put to it to date before 700 B.C.;

just how much later it belongs is, in the present state of knowledge, uncertain.

One matter remains to be discussed: the technique. The textures of the various surfaces and the various corrosions that have taken place and the patinas that have been acquired indicate that all these animals were cast. The fawn may have been polished, a circumstance that would account for its present excellent condition. In no instance is there positive indication of chiselling, filing or hammering by hand.³⁹ These observations are important because of a startling theory put forward by Casson and generally accepted for a while, that the earliest Greek statuettes were hammered out of bars and that until the sixth century statuettes were hammered for finishing after a rude casting.⁴⁰ Another theory of technique remains to be considered. Animals such as our nos. 3 and 4 have frequently been said to have been constructed of sheet metal, at least in their very thin parts. Miss Benton, who rejects Casson's theory of bar construction, is convinced that various animals were constructed in considerable part from hammered sheets, with other sections applied.⁴¹ I do not wish to contradict observations which others have made upon geometric animals which they have studied and which I have not even seen; but I can see no evidence that any of the animals which I have published here was constructed of sheet metal. There is no sign of any combination of parts; very thin sections grade into thick sections, without any line of demarcation and without any sign of a joint. The patina is consistent in every case, and it is exclusively of the type which I have learned to recognize as typical of cast bronze. Further, although it is quite possible that bronze animals were influenced

³⁶ G. Bruns, *Antike Bronzen* (1947) 12. I take it that Miss Benton at first inclined to an earlier dating of the mannered geometric, that is just a little later than the latest tripod horses: *BSA XXXV* (1934-5) 98, note 3. Elsewhere (*JHS LXX* [1950] 16, note 6) she says dates given by Kunze for some horses from the new excavations at Olympia suggest that he may be dating all geometric animals somewhat earlier: Kunze, *Neue Meisterwerke griechischer Kunst aus Olympia* (1948) 7f., nos. 8-11. I do not see much discrepancy. Kunze's figs. 8 and 9 are free-standing horses, rather short-legged, with short necks and very large heads; they must correspond to Benton's Class I of horses-on-stands, and Kunze agrees in dating them in the second quarter of the eighth century. The bull, his fig. 10, parallels Class II of horses-on-stands and he dates it in the third quarter of the century. His fig. 11, the newly found Olympia horse from a plate tripod, the one discussed by Hampe and Roland, he dates in the second half of the century, while his fig. 7, a ring handle with horse from a cast tripod he dates in the middle of the century. In all this, he seems very close to

Miss Benton's dating. See also Kunze's longer survey of early Greek statuettes: *IV. Bericht . . . Olympia*. For a horse on plate tripod handle he implies a date in the third quarter of the eighth century.

³⁷ *JHS LXX* (1950) pl. V, b = *BSA XLVIII* (1953) pl. 65, E 194; *JHS LXXII* (1952) 119, fig. 1; *LXX* (1950) pl. V, e = *BSA XLVIII* (1953) pl. 65, E 196. In her newer publication Miss Benton is more positive of her Ithaca datings. Her 194 was found in a vase which she dates about 700 B.C. Unfortunately the vase is hardly distinctive.

³⁸ Neugebauer, *op.cit.* (*supra* n.3) 10.

³⁹ The decoration on the base of no. 1 is by hand, after casting; see pl. 29, fig. 3. Decorations common on the bodies of the horses are concentric circles, hatchings and zigzags; and even on tripod horses there may be incision for the mane. Finishing of the surface is another matter, and cannot be detected in photographs.

⁴⁰ Casson, *JHS XLII* (1922) 207-219.

⁴¹ *BSA XXXV* (1934-5) 98, note 3; 116, note 6.

by creations in other media—terra cotta, wood, sheet bronze—there is, to my knowledge, no extant animal in these other media which can be adduced to prove such influence. In particular, the sheet metal animals from Olympia are quite different.⁴² Finally, it might be remarked that there is no trace of a casting gate on any of the animals. What process was used to construct the mold and

in what position the statuettes were cast are questions which remain unanswered. For want of any evidence to the contrary, one might still accept the dictum of Pernice, a good critic indeed, who in 1910 stated positively that all the Olympia animals were made by the *cire perdue* process.⁴³

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⁴² Neugebauer, *op.cit.* 30ff., pl. 8.

⁴³ *Zeitschrift für bildende Kunst* XXI (1910) 220f.

A Cypriote Temple Attendant

ERIK SJÖQVIST

PLATE 31

THE HEAD here published was bought from an art dealer in New York in 1954 and is now in the collection of Mr. Charles Whitson Stanford, Princeton, N.J., who kindly has given me the permission to publish it. It is made of the typical soft Cypriote limestone which was, from Archaic to Roman times, one of the favorite materials of the sculptors of the island.

The plate (pl. 31, figs. 1-3) makes a detailed description superfluous.¹ The head is somewhat less than half life size and portrays a young boy with rounded cheeks and soft features. It once belonged to one of the many Cypriote votive statues which crowded the hypaethral shrines of the island and of which great quantities have been found in many more or less regularly excavated temple areas. It can be dated to Hellenistic times and more specifically to an early phase of the period, probably the first half of the third century B.C. The rather sensitive treatment of the eyes seems to echo the style of the late fourth century in the artistic centres of Greece and the newly founded capitals of the Hellenistic Kingdoms, but I consider it hardly profitable to push the parallel further, or to try to establish a more precise date for our head from stylistic points of departure, which are the only ones we have at our disposal.²

As representative of its class, the head is not void of artistic merits—as a matter of fact it ranges above the average quality of its many companions—but that circumstance alone would hardly justify its separate publication. The interest of the head lies mainly in its curious headgear. The boy wears a cap of a very characteristic shape. It resembles a soft beret with a flat, circular crown and a narrow brim, very similar to a Scotch tam-o'shanter. It sits like a crown on his head, and the hair comes out under the brim in regularly partitioned tufts. This

is not a very common attribute, but it is by no means unparalleled in the Cypriote repertory.

It can be gathered from the Catalogue at the end of this paper that at least twenty instances of such heads are known through readily accessible publications of Cypriote material. They range in time from the late VII century B.C. to late Hellenistic and Roman times. What did they represent and was the beret their common sign of distinction?

The archaic terracotta statuettes, all from Ajia Irini (Catalogue nos. 13-17), are too summarily executed to reveal any individual features characteristic of the group except that they are male. In at least one instance it is quite clear that the figure wears a beard. Among the two thousand votive statuettes found in the temenos of Ajia Irini the vast majority were helmeted warriors, worshippers with wreaths around their heads, or turbaned priests. The tam-o'shanter cap therefore must have meant something particular, but the figures from Ajia Irini do not reveal the secret, nor does the history of the cult in general enlighten us in the matter.³

The later material in limestone (Catalogue nos. 1-12, to which the present head should be added) is somewhat more articulate. As far as evidence goes these figures are dressed in a typical short-sleeved tunic and are sometimes wearing a cloak hanging from their shoulders. This is an unusual dress contrasting with the countless Cypriote votive figures in the common full-length himation. Furthermore, they have plump, youthful faces, as has the Stanford head, quite often with a strikingly effeminate expression. Of particular interest is our Catalogue no. 6, the statuette of a so-called "temple boy," according to Myres' nomenclature. These little figures, mostly of very questionable artistic quality, have been found in many Cypriote sanctuaries, but to

¹ Dimensions: Total height, 10.1 cms.; from cap to chin 7.0 cms.; total width, 7.2 cms.; width of neck, 5.0 cms.; length of eye, 2.3 cms.; distance between eyes, 0.8 cms. Defects: Tip of nose, parts of both ears, and chips of cap missing; bruises on lips, chin and left cheek; surface worn here and there; some modern plaster has been smeared around the neck, obviously to conceal the joint between the head and a plaster bust, a base or a body not belonging to it.

² Totally unwarranted are Mr. Pryce's attempts to argue precise dates for this type of Cypriote sculpture from alleged iconographic influences from portraits of Ptolemaic princes. *Catalogue of sculpture in the Department of Greek and Roman antiquities of the British Museum*, Vol. 1, Part 2, pp. 77-78, 80.

³ For the cult of Ajia Irini see E. Sjöqvist, "Die Kultgeschichte eines zyprischen Temenos," *ArchRelWiss* XXX (1932) 308ff.

my knowledge never outside the island. Dressed in the same short-sleeved tunic as the group under discussion, and not infrequently provided with necklaces and earrings, they are rendered in a squatting position with one knee sharply bent so that the sexual parts become visible below the edge of the tunic. What precisely these repulsive little figures signify is obscure, but one would be justified in interpreting them as some attendants, perhaps male temple prostitutes, connected with a fertility cult. The cult which immediately presents itself as a possible candidate is the most famous of all Cypriote cults, that of the Paphian Aphrodite and Adonis, spread over the whole island. Their dress, the short-sleeved tunic, their fat and effeminate form, and—in one case—the tam-o'shanter cap are met with as regular features of the group represented by the Stanford head. Analogy seems to require that our head belong to a votive statue, dedicated not by an ordinary citizen but by one of these young temple attendants.

Among the later terracotta material, no. 18 in the catalogue looks like a normal Hellenistic version in terracotta of the limestone figures. The little Eros figure (no. 19) is of particular interest as the subject matter clearly indicates his connection with the Cypriote Aphrodite. His beret is basically of the same type as those carried by the votive figures, save that the rim seems to be fringed. The last Cypriote figurine (no. 20) is, like Eros, a baby. Cap and cloak are much too large for him, and create a bizarre effect which he has in common with the non-Cypriote specimens in the Louvre and the Metropolitan Museum of Art, New York (Catalogue nos. 21 and 22). Does the surreptitious smile of the figurine in the Louvre indicate that he is a humorous figure masquerading as an attendant of Aphrodite, or were he and his baby brothers initiated into the mysteries of the goddess at such a tender age?⁴

If one wants to visualize one of the temple servants performing his ritual duties, the figure of the young boy in front of a rural shrine on a stucco relief in Munich will serve as an adequate illustration (Catalogue no. 20). This exquisite little piece from the first half of the first century A.D. shows our young boy dressed in his beret and tunic ap-

proaching a small *aedicula* in a wooded landscape, and ready to dedicate a garland of flowers and fruits to the divinity.

In her recent work on the mural paintings from Boscoreale in the Metropolitan Museum of New York, Mrs. Phyllis W. Lehmann undertakes a re-interpretation of the *megalographia* paintings in the main room of the villa.⁵ They form, according to Mrs. Lehmann, a cycle of sacred representations related to the cult of Aphrodite and Adonis. The famous *cubiculum* with its unrivalled paintings of villa landscapes and sacred garden scenes fits into the same milieu, and thanks to her convincing analysis a new example is secured of the remarkable unity of content and intrinsic meaningfulness of the Campanian wall decorations. Mustering an admirable blend of profound learning and creative imagination, Mrs. Lehmann succeeds in proving her case and has given us a very fine contribution to the correct understanding of Roman painting.

One detail remains, however, unsatisfactorily explained, but the Stanford head and its companions provide us with the desired explanations. It deals with the scene on the section of the wall preserved in the Museo Nazionale in Naples. Studniczka's fanciful interpretation⁶ of the three persons as Antigonus Gonatas, his mother Phila, and the court philosopher Menedemus is wisely rejected as lacking every material foundation and intrinsic probability. The presumed Antigonus is shown not to carry the shield with the "Macedonian" star and not to wear the Macedonian *kausia*. The shield stands between the two seated figures and the alleged *kausia* is a cap of the tam-o'shanter type (pl. 31, fig. 4). Mrs. Lehmann is unaware of the Cypriote implications of the headgear to which her only parallel is the Munich stucco relief, but on other evidence reaches the conclusion that the scene depicts the Paphian Aphrodite mourning the death of Adonis, together with Cinyras, king of Paphos and the first high-priest of her Paphian sanctuary. The third person, wearing the beret, is pronounced a woman because of her light complexion and her female expression, but Mrs. Lehmann refrains from any more precise interpretation. "Such a cap may be a form of ritual headgear; in any case it is not inappropriate in a religious set-

on pp. 31ff.

⁴ Mrs. Dorothy B. Thompson informs me that similar figurines occur in Troy and that they will be published in the next volume of the publication of Professor Carl Blegen's excavations in Troy.

⁵ Lehmann, Ph. W., *Roman wall paintings from Boscoreale in the Metropolitan Museum of Art* (Cambridge, Mass. 1953). The various interpretations of the paintings are discussed

⁶ *JDAI* No. 38-39 (1923/24) 57-128. Studniczka's theory has found a considerable following. A bibliography of the controversy is given by Mrs. Lehmann, *op.cit.* 33-37; to this should be added the name of Ch. Picard, who sides with Studniczka, *Mon Piot* 44 (1950) 67-72.

ting. . . The most one can say about the Naples woman is that she appears to be an attendant figure associated with Aphrodite in one fashion or another."⁷ We now know that this perspicacious statement needs only a slight amendment. The white skin and the womanlike expression of the figure portray him as one of the effeminate young temple attendants of the Paphian Aphrodite and he wears his appropriate ritual dress. The tam-o'shanter cap, which was an inexplicable difficulty to Mrs. Lehmann when presenting her hypothesis, has become the final proof that her theory is correct.⁸ Therein lies for the time being the greatest interest of the Stanford head and its companions.

CATALOGUE

I. SPECIMENS OF CYPRIOTE PROVENANCE

A. Complete figures in limestone:

1. Young man, standing in short-sleeved tunic; holding a bowl in both hands. Unknown Cypriote provenance (Cesnola, L. P. di, *A descriptive atlas of the Cesnola Collection of Cypriote antiquities*, Vol. 1, pl. CXXXIV, no. 994).
2. Similar, but wearing a short cloak falling behind the shoulders over the tunic, and holding a pyxis in his left hand. Unknown Cypriote provenance (*ibid.*, pl. CXXXVII, no. 1024; wrongly described as wearing a wreath, but correctly by J. L. Myres, *Handbook of the Cesnola Collection of antiquities from Cyprus*, 186-187, no. 1193).
3. Similar, wearing tunic and cloak, and holding an apple in his right hand. Possibly from Idalion (Pryce, F. N., *Catalogue of sculpture in the Department of Greek and Roman antiquities of the British Museum*, Vol. 1, part 2, p. 80 and fig. 130, no. C 199).
4. Small statuette of similar type. Possibly from Idalion (*ibid.*, no. C 202).
5. Statuette of similar type; the cloak is somewhat longer and covers his right arm. Allegedly from Salamis (Cesnola, A. P. di, *Salamina*, pl. X, no. 2, opposite p. 118).
6. Squatting "temple-boy" statuette, dressed in tunic. Allegedly from Curium (Cesnola, *Atlas*, pl. CXXXI, no. 963).

B. Limestone heads:

7. Cesnola, *Atlas*, pl. CXIII, no. 803. Allegedly from Curium.
8. *ibid.*, pl. CXIII, no. 804. Possibly from Golgoi.
9. *ibid.*, pl. CXLIII, no. 1117. Unknown Cypriote provenance.
10. Pryce, *Catalogue*, p. 80, no. C 200, fig. 131. Possibly from Idalion.

11. *ibid.*, p. 80, no. C 201, fig. 131. Unknown Cypriote provenance.

12. Ohnefalsch-Richter, *Kypros, the Bible and Homer*, pl. XCII, no. 6. From Tamassos.

C. Terracotta:

13. Statuette with tubular body. From Ajia Irini (*Swedish Cyprus Expedition*, Vol. 2, pp. 741-742, no. 1796 and pl. CCXIII).
14. Small, very primitive statuette. From Ajia Irini (*ibid.*, p. 716, no. 1219 and pl. CCXXXI).
15. Similar statuette. From Ajia Irini (*ibid.*, p. 683, no. 259 and pl. CCXXIX).
16. Similar statuette. From Ajia Irini (*ibid.*, p. 721, no. 1369 and pl. CCXXXVI).
17. Head. From Ajia Irini (*ibid.*, p. 751, no. 2053 and pl. CCVII).

D. Late terracottas:

18. Head of youthful figure. He wears necklaces around his neck. Unknown Cypriote provenance. Cesnola, *Atlas*, Vol. II b, pl. LXVII, no. 620.
19. Small winged Eros with a swan; wings broken. A large cloak falls from his shoulders and his beret seems to be fringed. From the vicinity of Larnaca. Cesnola, *Atlas*, Vol. II a, pl. XLVI, no. 363.
20. Small figurine of a child dressed in a cloak, apparently too large for him; both arms are covered by the cloak; his beret is likewise too large to fit him. Unknown Cypriote provenance. Cesnola, *Atlas*, Vol. II a, pl. XXXIX, no. 314.

II. SPECIMENS OF NON-CYPRIOTE ORIGIN

21. Terracotta statuette of small boy dressed in a cloak that is too large for him and under which his two hands are muffled. From Myrina (Pottier, E. & Reinach, S., *La nécropole de Myrina*, p. 458 and pl. XLIII, 6; Pottier, E. and Reinach, S., *Terres cuites et autres antiquités trouvées dans la nécropole de Myrina, catalogue raisonné*, p. 163, no. 291).
22. Similar statuette. Unknown provenance, bought in Athens; unpublished. Metropolitan Museum of Art, New York, inv. no. 06.1064. (I am indebted to Miss Christine Alexander, Curator of Greek and Roman antiquities, for information concerning the statuette. It would not surprise me if its ultimate provenance were the West coast of Asia Minor, possibly Myrina or Troy.)
23. Stucco relief in the Antiquarium of Munich, representing a boy similarly dressed holding a votive garland of flowers in front of a rustic shrine. Illustrated and quoted with full bibliography by Mrs. Phyllis W. Lehmann, *op.cit.* 61.

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made to consider the scene a Roman group portrait (*AJA* 57 [1953] 237-240) as well as the desperate effort to cling to the Macedonian theory should be rejected.

⁷ Lehmann, *op.cit.* 62.

⁸ The scepticism with which Mrs. Lehmann's theory has been met has proved entirely unwarranted, and the attempts



On Mainland and Rhodian Workshops

Shortly before 600 B.C.¹

CHRYSOULA KARDARA

PLATE 32

THE OBJECT of this paper is to show that many ornamental patterns used in later Rhodian pottery are unknown to the earlier Rhodian style and are related to patterns which were used previously in the Proto-Attic and Melian styles. By earlier Rhodian is meant Rhodian of the seventh century B.C.; by later Rhodian, Rhodian of the very late seventh century and early sixth century B.C.; this dating is

based on twenty-seven grave groups which contained both Rhodian and mainland pottery.²

The conclusion reached in this paper is that later Rhodian depends partly on Proto-Attic and Melian. The validity of the conclusion depends, in the first place, on the correctness of the distinction between earlier and latter pottery in Rhodes. On this point full demonstration must await the completion of

¹ This paper is dedicated to my teacher, Professor Gertrude E. Smith. To Mr. Christos Karouzos I am especially indebted for permission to see his photographs of Melian vases. I owe warm thanks to Professor Franklin P. Johnson for his criticism. I am also greatly indebted to Mrs. Semni Karouzo, Sir John Beazley and Professor Bernhard Schweitzer for valuable counsel. To Mr. Alekos Papailiopoulos I owe thanks for his drawings, to Mr. George Tsimas for his photographs.

² The following grave groups contained mainland and earlier Rhodian vases:

1. No. IV at Makri Langoni (*Clara Rhodos* IV, 51-52, Fig. 22). A chamber tomb with a single burial, intact by the excavator's account, though the bones were missing, having become dust.
2. No. XII at Papatisloures (*Clara Rhodos* VI-VII, 51-56, Fig. 61). A single cremation burial, intact by the excavator's account, the cremated ashes laid on the rock with a wall around to protect them.
3. No. V at Makri Langoni (*Clara Rhodos* IV, 52-58, Fig. 26). A chamber tomb with two funeral couches of which only one contained a skeleton. The grave group was intact.
4. No. XV at Makri Langoni (*Clara Rhodos* IV, 80-81, Fig. 64). A chamber tomb with a single burial, blocked doorway, collapsed roof, but undisturbed pottery, all in one corner.
5. No. XXXII at Chekraki (*Clara Rhodos* VI-VII, 111-114, Fig. 122). A cremation burial disturbed in old excavations.
6. No. XXVII at Papatisloures (*Clara Rhodos* VI-VII, 84-98, Fig. 91). A chamber tomb with double burial, no vestibule, blocked doorway and intact grave group.
7. No. XXVIII at Papatisloures (*Clara Rhodos* VI-VII, 99-101, Fig. 105). A chamber tomb with double burial and intact grave group. This contained chiefly two earlier Rhodian oinochoai (one of class A, another of class B), which belonged to the first burial, and a later Rhodian plate, which belonged to the second burial.
8. No. XI at Papatisloures (*Clara Rhodos* VI-VII, 45-51, Fig. 49). A chamber tomb disturbed in late antiquity by the builders of a Roman grave who, by collecting the ancient relics in a pile in a corner, seem not to have contaminated the ancient grave group.
9. No. III at Makri Langoni (*Clara Rhodos* IV, 43-50, Fig. 13). A chamber tomb with open doorway and no traces of burial.

10. No. IV at Papatisloures (*Clara Rhodos* VI-VII, 21-23, Fig. 16). A chamber tomb with blocked doorway but, as the excavator believes, a disturbed grave group.
11. No. XXXIV at Chekraki (*Clara Rhodos* VI-VII, 115-116, Fig. 125). A cremation burial with disturbed grave group.
12. Grave No. 48 at Arkades (*Annuario*, X-XII [1927-1929] 124-128). A pithos burial.
13. Tomb No. 50 at Arkades (*Annuario* X-XII [1927-1929] 312-380). A tomb containing several bodies.
14. Grave No. 29 in Fusco Cemetery at Syracuse (*NSc* [1893] 457-458).
15. Grave No. 132 in Borgo Cemetery at Gela (*ML* XVII [1906] coll. 89-94, Figs. 57-58).
16. No. XXX at Chekraki (*Clara Rhodos* VI-VII, 104, Fig. 116). A chamber tomb partly excavated in previous campaigns, the grave group by the excavator's account intact at the innermost part of the burial chamber. The Rhodian oinochoe found in it is related stylistically to later pieces.
17. No. XVI at Ialysos (*Clara Rhodos* III, 44-45, Fig. 29). A single cremation burial, undisturbed.

The following grave groups contained mainland and later Rhodian vases:

1. No. II at Papatisloures (*Clara Rhodos* VI-VII, 17-19, Fig. 5). A double burial with undisturbed grave group, according to the excavator's account.
2. No. XLV at Ialysos (*Clara Rhodos* III, 72-80). A four-pit cremation burial.
3. No. II at Nisyros (*Clara Rhodos* VI-VIII, 476-483). A cremation burial.
4. No. CLII at Makri Langoni (*Clara Rhodos* IV, 276-277, Fig. 307). A pithos burial.
5. No. XI at Nisyros (*Clara Rhodos* VI-VII, 491-493). A cremation burial.
6. No. XIII at Nisyros (*Clara Rhodos* VI-VII, 493-494). A cremation burial.
7. No. III at Nisyros (*Clara Rhodos* VI-VII, 483-485). A cremation burial.
8. No. CCIX at Chekraki (*Clara Rhodos* IV, 361-362, Fig. 408). A cremation burial. The Corinthian type of alabastron in this grave is of local manufacture.
9. Grave No. 17 at Vroulia (Kinch *Vroulia* [Berlin 1914] cols. 76-78).
10. Grave No. 1 in Ex Spagna Cemetery at Syracuse (*NSc* [1925] 178-186).

my study of Rhodian pottery from the seventh to the fourth century B.C. However, this distinction will probably be recognized as sound by those who have studied the Rhodian ware. Rumpf's Kamiros-Gattung³ is earlier, his Euphorbos-Gattung⁴ is later.

The later Rhodian ornamental patterns that have counterparts in Proto-Attic and Melian are sixteen in number. They are all, unless otherwise noted, unknown to earlier Rhodian.

A: The simple dotted rosette

Found rarely in Middle Proto-Attic (stand in Berlin, *CVA* Berlin fasc. 1, Pl. 23, A 34), often in Late Proto-Attic (The Piraeus amphora, Pfuhl, *Malerei und Zeichnung der Griechen* III, Fig. 88); also in Melian (*MuZ*, Fig. 108). Most fashionable in later Rhodian (plate in Rhodes, *Clara Rhodos* VI-VII, 494, Fig. 20). Also in Proto-Corinthian (fragmentary skyphos in Villa Giulia, Johansen, *Les Vases Sicyoniens*, 78, Fig. 48).

B: The radiate dotted rosette No. 1

Found in later Proto-Attic (krater in Berlin, *CVA* fasc. 1, Pl. 48, 2, inv. No. 31333) and Melian (amphora in Mykonos known to me from Mr. Karouzos' photographs; also in Cretan, E. Kunze, *Kretische Bronzereliefs*, Pl. 55a). Rather common in later Rhodian (plate from Delos, *Délos* X, Pl. 59). Found also in Late Proto-Corinthian (*BSA* 43 [1948] 49, 51, Fig. 36, No. 255).

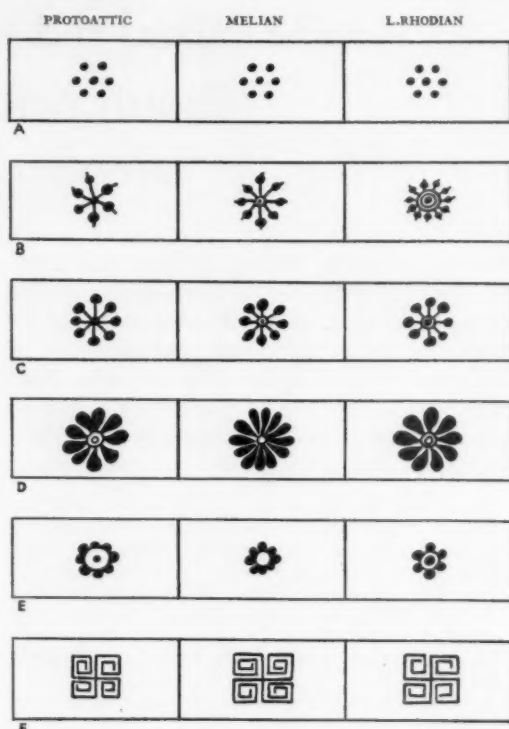
C: The radiate dotted rosette No. 2

Found in Middle Proto-Attic (the Ram Jug in Aigina, *BSA* 35 [1934-1935] Pl. 53); also in Early Proto-Attic (amphora in New York, *BSA* 35 [1934-1935] Pl. 47); and Melian (amphora in Athens, *MuZ*, Fig. 105). Common in later Rhodian (bowl in Oxford, *CVA* Oxford fasc. 2, II D, Pl. 4, No. 14). Found also in Proto-Corinthian, archaic style of class A (ovoid lekythos in Boston, No. 95.12, Johansen, *op.cit.* Pl. 22, 2 d), archaic style of class B (ovoid lekythos in Boston, No. 95.13, Johansen, *op.cit.* Pl. 26, 3).

D: The daisy-like rosette

Found in Middle Proto-Attic (krater in Cambridge, *CVA* Cambridge fasc. 1, III G h, Pl. 2, No. 7) and Melian (amphora in Athens, *MuZ*, Fig. 105). Present in later Rhodian (Schaal, *Bilderhefte* III [Leipzig 1928] Pl. 6). Found also in Proto-Corinthian (aryballoid lekythos from the Argive Heraion, Johansen, *op.cit.* 53, Fig. 30); Laconian II

³ *JDAI* 48 (1933) 69-75.



(see table of patterns in *BSA* 34 [1933-1934] 124, Figs. 12, 30); and Cretan (kettle from Arkades, *Annuario* X-XII [1927-1929] 172, Fig. 192).

E: The circular dotted rosette

Found in Late Proto-Attic (amphora fragment from the Agora, R. S. Young, "Late Geometric Graves and a Seventh Century Well in the Agora, Athens 1939," *Hesperia*, Supplement II, 119, Fig. 85) and Melian (Hydria in Mykonos known to me from Mr. C. Karouzos' photographs). Common in later Rhodian (fragment of bowl in Cambridge, *CVA* Cambridge fasc. 2, Pl. 18, No. 19). Found also very often during the Transitional style in Corinth (Payne, *Necrocorinthia*, Pl. 13, oinochoai 3 and 4), also about the end of the Middle Corinthian style and during the Late Corinthian style (*Necrocorinthia*, 157, Fig. 69).

F: The elaborate meander square

Unknown to earlier Rhodian in this elaborate form. Found in Middle Proto-Attic (stand in Berlin, *CVA* Berlin fasc. 1, Pl. 31, Nos. 1, 2, A 42) and Melian (amphora in Athens, *MuZ*, Fig. 110). Very common in later Rhodian (oinochoe in Rhodes,

⁴ *JDAI* 48 (1933) 75-83.

Clara Rhodos VI-VII, 479, Fig. 5). Also in Proto-Corinthian, archaic style of class A (skyphos in Florence, 79249, Johansen, *op.cit.* Pl. 25, 2 a b), Laconian II (see table of patterns in *BSA* 34 [1933-1934] 124, Fig. 12, No. 24); and Cretan (see list of decorative motives in *Annuario* X-XII [1927-1929] 515, Fig. 599 C).

G: The hooked triangle No. 1

Found in Middle Proto-Attic (amphora in Berlin *CVA* Berlin fasc. 1, Pl. 5, 1 and 2, A 9) and Melian (hydria from Delos, *Délos* X, Pl. 7, 15 b). Present in later Rhodian (plate in Rhodes, *Clara Rhodos* VI-VII, 492, Fig. 19). Found also in Proto-Corinthian, archaic style of class B (ovoid lekythos in Boston, 95.10, Johansen, *op.cit.* Pl. 30, 2 a b); in Laconian III (J. P. Droop, "Excavations at Sparta," *BSA* 15 [1908-1909] 156, Fig. 19); also in Laconian I (fragment in Sparta, *BSA* 34 [1933-1934] Pl. 25 d); and in Cretan (see lists of decorative motives in *Annuario* X-XII [1927-1929] 511, Fig. 599 B).

H: The hooked triangle No. 2

Found in Middle Proto-Attic (krater in Berlin, *CVA* fasc. 1, Pl. 27, 1, A 36) and Melian (amphora in Mykonos known to me from Mr. Karouzos' photographs). Common in later Rhodian (oinochoe from Selinus, *ML* 32 [1927] Pl. 82, 3).

I: The plain hook pattern

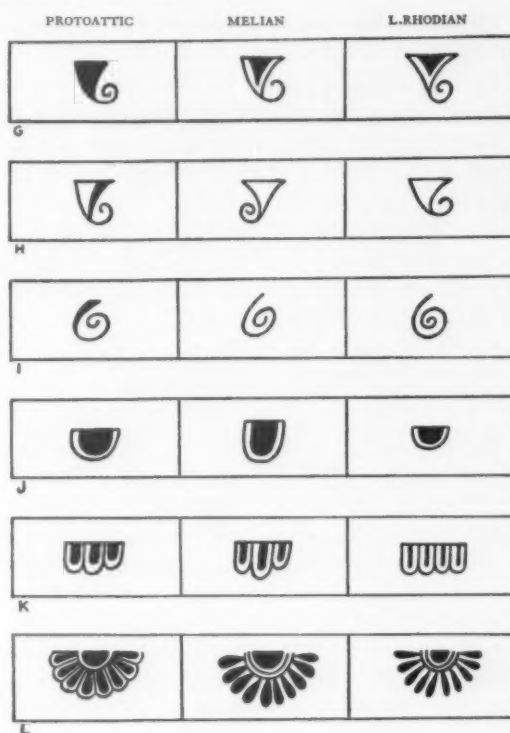
Found in Middle Proto-Attic (stand in Berlin *CVA* Berlin fasc. 1, Pl. 31, 1, A 42, in the zone of the sphinxes) and Melian (hydria from Delos, *Délos* X, Pl. 7, 15 c). Present in later Rhodian (oinochoe from Delos, *Délos* X, Pl. 12, 60 a b). Found also in Cretan (jug from Arkades, *Annuario* X-XII [1927-1929] 411, Fig. 531).

J: The outlined semicircle

Found in Middle Proto-Attic (krater in Berlin, *CVA* Berlin fasc. 1, Pl. 16, 1, A 26) and Melian (plate from Delos, *Délos* X, Pl. 4, 28). Present in later Rhodian (plate from Delos, *Délos* X, Pl. 59, 72).

K: The outlined tongues

Found in Middle Proto-Attic (the Nessos amphora in New York, *MuZ*, Fig. 86) and Melian (plate from Delos, *Délos* X, Pl. 5, 31). Present in later Rhodian (oinochoe in London, *JHS* 50 [1930] 84, Fig. 2). In later pieces this pattern was replaced by short verticals.



L: The half rosette

Found in Middle Proto-Attic (the Kynosarges amphora in Athens, *BSA* 35 [1934-1935] Pl. 56 b) and Melian (amphora in Athens, *MuZ*, Fig. 110). Present in later Rhodian (plate from Delos, *Délos* X, Pl. 59, 72). Found also in Cretan (list of decorative motives in *Annuario* X-XII [1927-1929] 515, Fig. 599 C, third in the last row).

M: The simple double spiral

Found commonly in Early Proto-Attic (amphora in New York, *BSA* 35 [1934-1935] Pl. 47), Middle Proto-Attic (krater in Berlin, *CVA* Berlin fasc. 1, Pl. 8, 1, A 16) and Melian (amphora in Athens, *MuZ*, Fig. 110). Present in later Rhodian (plate in London, *JHS* 50 [1930] 84, Fig. 3). Found also in Proto-Corinthian, archaic style of class A (ovoid lekythos in Boston, 95.12, Johansen, *op.cit.* Pl. 22, 2 b).

N: The elaborate double spiral

Found in Late Proto-Attic (the Piraeus amphora in Athens, *MuZ*, Fig. 88) and Melian (amphora in Athens, *MuZ*, Fig. 108); in Proto-Attic the side elements are incised and enhanced with purple. In later Rhodian found rarely (plate in Chateau de la

Cordelière, Aube, *Clara Rhodos* VI-VII, 543, Fig. 84).

O: The volute pattern

Found in Middle Proto-Attic (krater in Berlin, *CVA* Berlin fasc. 1, Pl. 13, 1, A 22) and Melian (amphora in Athens, *MuZ*, Fig. 105). Found in later Rhodian (oinochoe in Oxford, *CVA* Oxford fasc. 2, II D, Pl. 2, 6). It is found also in Laconian I (fragment in Sparta, *BSA* 34 [1933-1934] Pl. 23 c) and Cretan (oinochoe from Arkades, *Annuario* X-XII [1927-1929] 369, Fig. 485).

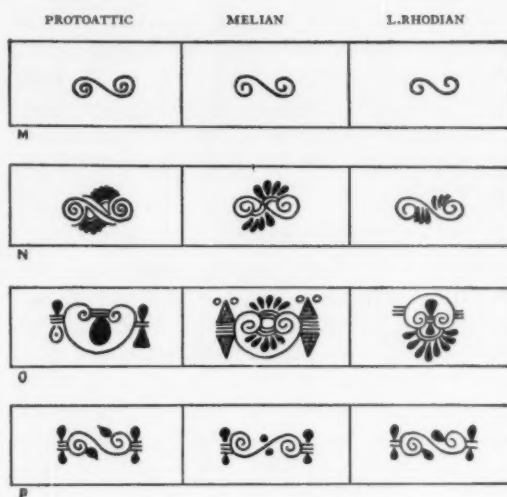
P: The repeated double spiral with drops

Found in Middle Proto-Attic (stand in Berlin, *CVA* Berlin fasc. 1, Pl. 30, 1-2, A 41) and Melian (hydria in Mykonos known to me from Mr. Karouzos' photographs). Present in later Rhodian (fragment of plate in London, *JHS* 44 [1924] Pl. 7, 3).

The aspect which in the first place deserves most stress is the fact that only a very few earlier Rhodian patterns survive in later Rhodian. More than two-thirds of the patterns of the later Rhodian style (dated ca. 615-560 B.C.) are completely unknown to the earlier Rhodian style (dated ca. 660-600 B.C.). The first conclusion, therefore, is that these must either have been imported from an outside region or have developed from imported patterns.

The second aspect which deserves stress is the fact that many later Rhodian patterns are related to patterns which in Attica and Melos were in vogue in the period immediately preceding the time of their introduction to Rhodes. Several, but not all, of the same motives are fashionable in the repertory of the Proto-Corinthian style; a few are found in Laconian I and II and some in Cretan.

The second conclusion is that later Rhodian motives cannot have been transmitted to Rhodes from Corinth, first because only a few have so far been found in Proto-Corinthian pottery; and next because in Corinth these occur only before the middle of the seventh century B.C. and the gap which separates their earliest appearance in Rhodes from their latest occurrence in Corinth is large. In Attica these occur not only before, but also after, the middle of the seventh century B.C. After the middle



of the same century they also occur in Melos. The main conclusion, therefore, is that they are transmitted to Rhodes from either Attica or Melos.

A comparison of the individual later Rhodian patterns with Proto-Attic and Melian shows that there are several later Rhodian motives which stand closer to Melian than to Proto-Attic. They seem, therefore, to have been derived from the Melian patterns rather than from the Proto-Attic. The dependence of the Melian on Proto-Attic, which can be inferred from the comparison of these motives, may deserve a few more remarks, useful perhaps to define the period in which the Melian style flourished. Melian horses show two kinds of mane similar to Proto-Attic. The mane of the horses of Apollo's chariot on the well-known Melian amphora in Athens (pl. 32, fig. 1)⁵ invites comparison with that of the horses of the Piraeus amphora in Athens (pl. 32, fig. 2).⁶ Both show a series of flames with incised outline. The mane of the other type, which shows groups of wavy lines in applied color, as seen on the reverse of the same Melian amphora (pl. 32, fig. 3), can also be paralleled with that of other Proto-Attic horses (pl. 32, fig. 4).⁷ The two types are different from the Proto-Corinthian form of mane and from the Early Corinthian (see *Necrocorinthia*, 72, Fig. 18, A-E).⁸ The scale pattern of Artemis' dress on the same

⁵ Pfuhl, *MuZ*, Fig. 108; Conze, *Melische Tongefässe* (Leipzig 1862) Pl. 4; Buschor, *Griechische Vasenmalerei*, 73, Fig. 53.

⁶ *ArchEph* (1897) Pls. 5-6; Perrot-Chipiez X, 81 and 83; *MuZ*, Fig. 88; Buschor, *op.cit.* 66, Fig. 49; Kübler, *Altattische Malerei*, 71, Fig. 69.

⁷ Fragments in Athens (No. 15958) *BSA* 35 (1934-1935) Pl. 48 a; Kübler, *op.cit.* 35, Fig. 1.

⁸ Johansen (*Les Vases Sicyoniens*, 152, Fig. 111) and Payne

(*Necrocorinthia*, 72) had regarded the Proto-Corinthian and the Corinthian mane as derived from the Cretan forms. A careful examination, however, shows that the Cretan type has the same series of flames as the Proto-Attic. The Proto-Corinthian and Early Corinthian forms are different. They show either a compact mane (see *ibid.* 72, Fig. 18, A) or a series of oblique or wavy lines confined between an upper and a lower outline (*ibid.* 72, Fig. 18 B-E). It should be

aforementioned Melian amphora also invites comparison with the scale pattern of Aegisthus' and Klytemnestra's garments on the Berlin krater (*CVA* Berlin fasc. 1, Pl. 20, A 32). A relation, therefore, between Attica and Melos may well be inferred from the comparison of these equine manes and garments. Real evidence, however, for the artistic relation between Proto-Attic and Melian can only be found in the comparison of their respective motives and other decorative elements.

Three of the later Rhodian motives suggest further remarks. N, the elaborate double spiral, is so far found in Attica only in Late Proto-Attic. From this fact, and from the evidence produced by the comparison of the equine manes, it appears that the Melian amphora in Athens above cited should be slightly later than the Piraeus amphora. E, the circular dotted rosette, is found only in Late Proto-Attic. This apparently originated in Corinth during the Transitional period as a quick rendering of the dotted rosette (see *Necrocorinthia*, Pl. 13, 3 and 4), then disappeared, being replaced by the ubiquitous incised rosette, was transmitted to Attica through the Transitional style, was used by the Late Proto-Attic and the early Black Figure styles and, toward the end of the Middle Corinthian period, reappeared in Corinth through Attic influence.⁹ Through the same influence at the same time, i.e. about the end of the Middle Corinthian period, the simple dotted rosette, pattern A, also reappeared in Corinth.¹⁰

The consideration of the origin of late Rhodian patterns brings out clearly the ingredients of the later Rhodian style. This style is definitely a development of earlier Rhodian. Typologically, however, it is clearly distinguishable from it. From earlier Rhodian it inherits some of the shapes and part of the decorative scheme and composition. Then it shows several elements from outside. The last years of the seventh century B.C. apparently witnessed a revolution in Rhodian vase painting. The old Rhodian technique of silhouette-outline-reservation and the traditionally favored themes and shapes continued to exist. But new elements were, in addition, introduced from outside. First a fresh impulse from Corinth through the Early Corinthian style established the method of incision. It also intro-

duced new shapes and themes. Then there came another impulse from Attica. Through the Middle and partly through the Late Proto-Attic style this exercised an influence on the Melian style and indirectly affected the later Rhodian style. This influence introduced different decorative motives and elements and brought a different spirit into the field. The amalgamation of styles resulted in a style elegant, fresh, and varied.

That Attica played an important role in the transmission of these motives should not now be startling. The material revealed during the last few decades has increased our knowledge about Attica in the seventh century B.C. It also has placed her early artistic record on a different basis.¹¹ "The brilliant discoveries of the German Archaeological Institute in the vicinity of the Dipylon and of the Greek Archaeological Society at Vari," writes Mr. C. W. Blegen,¹² "have revealed an astonishing wealth of pottery of the orientizing period and have placed our knowledge of this phase of Athenian culture on a new footing. We see now that Attica of the seventh century B.C. was not a crude and backward region, but a lively progressive center, perhaps not her equal in delicacy and finesse, but hardly falling short of Corinth in inventive power, originality and sturdy vigor." Mr. J. M. Cook in his authoritative study of Proto-Attic pottery says that "The recent finds from Vari shew that the Attic vase painters of this period were far from being imitators of their rivals in Corinth; Later Proto-Attic and Early Corinthian now appear as parallel manifestations, Attic on a more ambitious scale, of the same movement in Greek vase painting."¹³ Professor R. M. Cook also says that "in art the early Ionians were behind the most advanced of the Greeks in Europe" and that "the borrowings of the European Greeks made from the Orient need not have come by way of Ionia" (*JHS* 46 [1946] 97: cf. G. Hanfmann in *AJA* 49 [1945] 580). In the light of our knowledge today a sober consideration leads to the conclusion that the mainland has now to receive still more recognition than it had before for its contribution toward the advancement of the ceramic arts in the later part of the seventh century B.C. "The east was conservative, the west experimenting" Sir John Beazley

noted also that in later times, i.e. after 600 B.C., the Corinthian and Proto-Attic types are no longer distinct.

⁹ Payne, *op.cit.* 157, Fig. 69.

¹⁰ *loc.cit.*

¹¹ For the recent bibliography on Proto-Attic see: Kübler, *op.cit.* 31. For the dating of Proto-Attic see: *BSA* 35 (1934-1935) 200-204; *BSA* 42 (1947) 139-155; *CVA* Berlin fasc. 1; Payne,

op.cit. 190-202, 344-347; *Hesperia* 13 (1944) 38-57; *JHS* 59 (1939) 151-152; *AJA* 43 (1939) 714-715; *AA* (1939) 417ff.; Kübler, *op.cit.* 5-30.

¹² *Harvard Studies in Classical Philology*, Supplementary Vol. 1 (1940) p. 3.

¹³ *BSA* 35 (1934-1935) 200.

once said¹⁴ regarding the lead taken in the artistic revolution of the seventh century styles.

One point that deserves note is the presence of a few patterns in Laconian II, dated by Lane in 630-590 B.C.,¹⁵ and of one or two patterns in Laconian I, dated by Lane in 700-630 B.C.¹⁶ (for one of these, Lane is willing to admit a Melian influence).¹⁷ More extensive material available, i.e., more patterns to compare, will perhaps solve the problem of the origin of these Laconian motives.

Another point that may be mentioned is the absence of Melian material in Rhodes. This, however, hardly suggests any weakness in the theory. It can be paralleled by the absence of Cretan material in Corinth in the late eighth and early seventh centuries B.C.¹⁸

That later Rhodian shows a dependence not only on Early Corinthian but also on Proto-Attic and Melian may suggest certain conclusions. The new data suggest that at the end of the seventh century B.C. the influence of the mainland reached eastern Greek regions in two streams, one flowing directly from Corinth, the other from Attica via Melos. This conclusion has a twofold bearing. It corroborates Sir John Beazley's,¹⁹ Humfry Payne's,²⁰ R. M. Cook's²¹ and G. M. A. Hanfmann's²² conclusion that the mainland was one of the artistic forces at work in the post-geometric period and also questions the validity of the older view that the new and creative power was exclusively in the hands of the Ionians.

By the consideration of two of the chief mainland styles of the late seventh century B.C. and the com-

parison of the decorative motives of later Rhodian with Proto-Attic and Melian, it appears that, in the later part of the seventh century B.C., Attica as well as Corinth had an influence on east Greek ceramics. This conclusion is followed by another: if numerous later Rhodian motives appeared in the mainland pottery earlier than in Rhodian pottery, then it should be inferred that Rhodes had no great importance in the transmission of the decorative motives in the later part of the seventh century B.C. It will then be natural to suppose that in this period its importance for other cultural elements must likewise be reduced.²³

The general conclusion, therefore, is that the course of most of the later Rhodian decorative motives was from the mainland to the east rather than from east to west. East Greece lagged behind in the spreading of these motives. She was at that time the borrower, not the lender. The transmission of most of the decorative motives to later Rhodian came not from the Orient but from Greece proper, i.e., Attica through Melos.

The earlier course traveled by many of these motives and decorative elements before they reached Corinth and Attica remains misty. Some of them are found to have occurred in Cretan pottery. The evidence of a much longer series of Cretan burials than is at present available will perhaps provide the clue to the origin of these patterns.

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Vasenmalerei, 11, *Corinth* VII, 1, 22-23 and 87, and *JHS* 46 (1946), 93, note 208.

¹⁹ *Cambridge Ancient History* 4, 586.

²⁰ Payne, *Necrocorinthia*, viii.

²¹ *JHS* 46 (1946) 97ff.

²² *AJA* 49 (1945) 580.

²³ *JHS* 46 (1946) 97ff.

¹⁴ *Cambridge Ancient History* 4, 586.

¹⁵ *BSA* 34 (1933-1934) 122.

¹⁶ *ibid.* 115.

¹⁷ *ibid.* 119.

¹⁸ On the relation between Cretan and Proto-Corinthian see Payne, *op.cit.* 5; Johansen, *op.cit.* 45; Payne, *Protocorinthische*

Dotted Letters in Greek Epigraphy*

W. KENDRICK PRITCHETT

PLATES 33-34

IN THE INTERPRETATION of epigraphical texts, the partially preserved or indistinct letter may hold the key to the meaning of entire passages. Such letters are usually indicated nowadays by the use of a dot beneath. Since most of the stones on which inscriptions were cut are now broken or damaged, many letters are of necessity uncertain; and accordingly the use of such dots has become very general. An examination of certain problematical letters has tempted me to make a brief analysis of the whole subject of dotted letters, and to conclude that although in general there is agreement in definition, in practice there is disparity, and in some usages at least there is much danger.

In the present study, I shall first briefly sketch the early history of the use of dotted letters. Second, I shall analyze the three functions of dotted letters in present-day Greek epigraphy. The third section, on which I lay the most emphasis, takes up in some detail, and with photographic illustrations, certain striking cases exemplifying two misusages of the dotted letter. Lastly, I propose measures which would help minimize the dangers arising from these misusages.

In the publication of epigraphical texts in the nineteenth century it was customary to provide a majuscule text. The editor could indicate by the use of broken type just what he saw on the stone. For instance, if the vertical stroke of an *epsilon* was the only trace remaining, the editor printed an upright in the left side of the letter space. If the letter was very faint, but its identity unmistakable, the shape was indicated by a series of dots. Thus, a very indistinct *omicron* would be printed in the form \textcirc . This system was used for all Attic inscriptions published in the *Inscriptiones Graecae*.

The practice of using dotted letters was appar-

ently taken over from papyrology. This use of dots in papyrological publication was well enough established by 1898 so that dotted letters were included in the table of sigla in the first volume of the *Oxyrhynchus papyri*. Grenfell and Hunt stated, "Letters with dots under them are to be considered uncertain."¹

In epigraphical writing, the dotted letter first made its appearance in majuscule texts around 1897. The earliest publication in which I have found it used is Heberdey, *Opramoas* (Vienna 1897). Here the dots occur only in majuscule, as shown in the drawings at the back of the book, where Heberdey used dotted letters, broken letters, and even dotted broken letters. In the accompanying minuscule texts, the dotted letters of the majuscule, representing only indistinct letters, were not placed in square brackets, while the incomplete letters, represented by broken type in the majuscule, were bracketed.²

In periodical literature, where my search has been limited to certain major publications, dotted letters seem to have appeared first around 1901. In the *JHS* of that year, J. G. Milne, publishing an article on Greek inscriptions from Egypt, used dotted letters, though in the minuscule text only.³ At the same time, the *AM* published an article of W. Kolbe which contained dotted letters.⁴ In *BCH* of the following year, Chapot and Lefebvre used dots sparingly in their majuscule texts, but not in the accompanying minuscule texts. In the *Jahreshefte* of the year 1902, there is one dotted letter in a minuscule text published by Kretschmer: (5 [1902] 141, line 18). There was no accompanying majuscule text.⁵

In the following years the usage fluctuated according to individual tastes. Dots were rather common in the publication of Delian inscriptions,

* This article was begun in Athens while the writer was the holder of a Guggenheim and of a Fulbright fellowship. Dr. Markellos Mitsos graciously placed the facilities of the Epigraphical Museum at my disposal. Professor J. Poultney, of The Johns Hopkins University, came to my aid on one point requiring clarification. Eugene Vanderpool, Professor of Archaeology at the American School of Classical Studies, kindly read the manuscript, and I am indebted to him in addition for stimulating discussion of each of the epigraphical texts.

¹ Grenfell and Hunt, *Oxyrhynchus Papyri* 1 (1898) xvi. Cf. B. P. Grenfell, *An Alexandrian Erotic Fragment and Other*

Greek Papyri (Oxford 1896) xii. The use of dots beneath letters by editors of papyri is discussed by A. S. Hunt in *Chronique d'Égypte* 7 (1932) 272-274.

² Many years later, in 1912 (*Forschungen in Ephesos* 2), when Heberdey had the advantage of excellent line drawings, he dispensed entirely with dots.

³ "Greek Inscriptions from Egypt," *JHS* 21 (1901) 275-292.

⁴ *AM* 26 (1901) 377-418.

⁵ In the *Jahreshefte* for 1904, 7, page 89, Chaviaras and Hiller von Gaertringen used two dots in a minuscule text, where there was none in the accompanying majuscule.

whereas they were late in being introduced into the Delphic inscriptions in the same periodical, *BCH*.

Obviously, the use of a dot was mainly a matter of personal preference and not of editorial policy; because periodicals (for example *Hermes*) contain papyrological publications with dots in profusion, whereas epigraphical articles in the same volume have none.

In the *Inscriptiones Graecae*, dotted letters were first used by Kern in *IG IX*, 2 (1908). Kern published majuscule texts in which partially preserved letters were reproduced with broken type, and indistinct letters were apparently indicated by dots under the letters.⁶ Hiller published *IG XII*, 5, pars 1 (1903) without using dotted letters, but in 1909 in *IG XII*, 5, pars 2, he employed them in both majuscule and minuscule texts. Sometimes a broken letter is transcribed in the minuscule as a dotted letter, and sometimes a dotted letter is transliterated as a clear letter. Dotted letters in his minuscule text, then, may stand for either complete but faint letters, or broken letters.

In 1912 Dürrbach edited a fascicle of Delian inscriptions (*IG XI*, 2) which was the first volume of the *Corpus* in which no majuscule text appeared. Here the dots under letters in the minuscule text occur frequently and seem to indicate both broken letters and indistinct letters.⁷

The tendency here is clear. When an inscription was published in both majuscule and minuscule texts, the dotted letter was far more frequent in the majuscule text, and apparently indicated an indistinct letter, not a broken letter. When texts were printed in minuscule only, it became common to

use the dot under any letter which was epigraphically doubtful.

In 1932 under the auspices of the Union Académique Internationale, there was held in Leyden a conference to secure uniformity of usage in the reproduction of ancient texts. In the new system of critical signs worked out by this conference, the dot was to be used to indicate a "lettre douteuse, c'est-à-dire tellement imparfaite que, sans le contexte, elle pourrait être lue de plus d'une façon."⁸ Wilcken, the editor-in-chief of *Inscriptiones Graecae*, declared his adherence to this system (*ArchP* 10 [1932] 211-212) and with few exceptions it has been adopted.⁹

Hondius has professed to adopt the Leyden system (*SEG* 7, *praefatio*), but in the treatment of the dotted letter he is exceptional; for in the table of sigla to vols. 7-10 inclusive he has the following note: "Non puncto supposito notantur litterae quae quamquam pars tantum in lapide exstat tamen certa ratione supplari possunt. ΕΔϚ — — Ω'ΔΗΜΩΙ = ἔδοξε τῷ δήμῳ." Unquestionably the fourth, fifth, and sixth letters of Hondius' illustration are epigraphically doubtful, that is, these traces in another context could stand for different letters. Although Hondius in *SEG* did omit many dots which had appeared in the texts he was copying, he did not apply his rules with consistency. An interesting example is the *SEG* 10 (1949) reproduction of the tribute quota lists of the year 422/1 B.C. (no. 175). In the first two lines of this inscription, each of three words had hitherto always been published with one dotted letter apiece: [Α]φιδναῖος, πρῶτ[ος], and [Σκ]αμβονίδες. They are so published, for example, in Meritt, Wade-Gery, and McGregor,

⁶ We may infer Kern's usage of sigla from his practice. For example, no. 65 is the republication of an inscription edited by Rangabé, *Ἐφ. Ἀρχ.*, 1838, no. 66. Kern himself had not seen the stone. When he came to reproduce Rangabé's line drawing, the letters which appear as shaded and indistinct are now dotted by Kern. Letters which are only partially preserved in Rangabé are printed as broken letters.

⁷ The first occurrence of the explanation of a dotted letter in the introduction to an epigraphical publication is in O. Kern, *Die Inschriften von Magnesia am Maeander* (Berlin, 1900) xxxvii. His entire passage is worthy of quotation: "Unter dem Text finden sich die Angaben über unvollständig erhaltene oder unverständliche Buchstaben. Dabei ist nicht mit der Ausführlichkeit verfahren worden, wie es mancher Epigraphiker vielleicht verlangen mag. Denn es scheint zwecklos, die Reste solcher Buchstaben mit peinlicher Genauigkeit anzugeben, über deren Deutung nicht der geringste Zweifel bestehen kann. Manches ist also mit Stillschweigen übergegangen; in anderen Fällen ist ein Punkt unter den nur unvollständig erhaltenen Buchstaben gesetzt worden. So sicher an den Abschreiber zunächst die Forderung gestellt werden

muss, den Stein so aufzunehmen, wie er vor ihm liegt, mit allen Zufälligkeiten der Schrift und der Erhaltung, ebenso klar ist es, dass viele derartige Mitteilungen für eine Edition unnötiger Ballast sind und keinen wissenschaftlichen Wert beanspruchen können."

⁸ Union Académique Internationale. *Emploi des signes critiques. Disposition de l'apparat dans les éditions savantes de textes grecs et latins*. Conseils et recommandations par J. Bidez et A. B. Drachmann (édition nouvelle par A. Delatte et A. Severyns, Paris, Société d'édition Les Belles Lettres, 1938) 15. Cf. *Chronique d'Égypte* 7 (1932) 285.

⁹ Thus Tod in *Greek Historical Inscriptions* 1², in giving his list of symbols (p. xx) states: "A dot placed under a letter indicates that part of the letter is lost or illegible, but that what remains is compatible with, though it does not necessarily postulate, the proposed restoration." Meritt, Wade-Gery, and McGregor, in *ATL* 2 (p. 7) state: "Dots under letters indicate readings that are epigraphically doubtful." In the *editio minor* of the *Corpus*, the following notation was employed by Kirchner: "a in notandis litteris dubiis."

ATL 2, 33.¹⁰ In the case of all three words it is to be noted that the complement is certain. The editors of *SEG* 10, in conformity with their table of critical signs, have removed the dots from the first and third words, although in the case of the *alpha* of *Σκαμβονίδες* only a slight trace of one diagonal stroke is preserved. On the other hand, they retained the dotted *tau*, of which the base only is preserved. In this writer's opinion the adoption of Hondius' system, in which a broken letter in a clear context is undotted, would be regrettable.

* * *

Dots fulfill three functions in present-day epigraphy. The first, and by far the commonest, usage is to denote uncertainty as to the identity of a letter when part of it is missing. This function was performed in former days by the use of broken type in majuscule text. If, for example, in a carefully cut inscription, one diagonal and the horizontal stroke of an *alpha* remain, there is no need to use a dot, because the letter could not possibly be anything but an *alpha*. But if only one diagonal remains, and the stroke could be part of any one of a number of letters, the particular letter which the editor chooses because of the context must be dotted.

The second usage is to denote faintness of a letter making its identity not absolutely certain. This was previously indicated by shading in a drawing, or by dotting the entire outline of the letter in majuscule text. Many examples can be seen in Kalinka's *Tituli Asiae Minoris* 2, fasc. 3 (Vienna 1944), where drawings and minuscule texts are printed side by side.

A third and rather minor use of the dotted letter occurs when the epigraphist is working from an old copy of a lost inscription. If any letter in the copy is changed by a later editor, the new letter may be dotted (by some but not all editors; some use an angular or a curved bracket).¹¹ An example of this usage is illustrated in Meritt, Wade-Gery, and McGregor, *ATL* 2, 55, where more than one hundred dots are used in "correcting" Fauvel's copy of the inscription. For example, where Fauvel read ΘΕ.ΘΕ.ΟΝ., the *ATL* editors read ἐλ[έ]γγεν (line 10). They carefully explain their method: "We avoid the cumbersome orthography of most texts by reading merely with a dot beneath letters mistakenly¹² given by Fauvel." Elsewhere in the

same volume the editors state (p. 67): "We note the possibility that the letter read by Baumeister as P was really N; this would allow the restoration [γενόμε]νον." One can correct with angular brackets Baumeister's *rho* to a *nu*; but in itself the shape of a *rho* could hardly be reconciled with the shape of a *nu*. In *Hesperia*, Supplement 8, 214-215, Vernon's *Agēras* is restored by Meritt as [Ἀρχ]αγέρας. Here again the *sigma* cannot be invoked as evidence for an *iota*. In another case, trifling, to be sure, Meritt has reported that the name which has formerly been read as [Ἐρυξ]ίας can now be corrected from the diary of Vernon into [Ἐρ]υξίας. Since the dotted letter is used in this sweeping way, one does not really know what Vernon's diary contained that would constitute a basis for such a dotted letter. The question arises, what is the meaning of the dotted *upsilon*? If we take page 55 of *ATL* 2, we could find parallels for answering that it is any other letter in the alphabet. The dot may mean that Vernon read a letter in this space and that it is being changed into another letter without the shapes of the letters necessarily corresponding in any way.

A dotted letter may legitimately be used when the evidence of the original copying and the emendation of the more recent editor can be more or less reconciled palaeographically. For example, if the copyist read a *gamma*, and a *tau* is required according to the text, the reading of the *gamma* may indeed be considered to afford evidence of a sort for a *tau*. But if the new letter cannot be reconciled palaeographically with the old, angular brackets should certainly be used. In publishing such texts based on old copies, it would be well to make a distinction between these identifications, reserving the dot for the palaeographically probable one, and angular brackets for the rest. For example, if the old copy contained an *omicron*, the editor who changes this to a *theta* could use a dot; but the one who changes it to a *chi*, as the *ATL* 2 editors do on page 55, should use angular brackets. The new text of the Erythrai decree (*IG* I², 10) would be far more useful if such a distinction had been made between corrections which were palaeographically connected with Fauvel's copy and those which were not. In spite of the "cumbersome orthography" of angular brackets, their use is preferable when a correction

¹⁰ For a drawing and photographs, see *ATL* 1, 100-101.

¹¹ M. N. Tod uses curved brackets in his *Greek Historical Inscriptions*.

¹² Mistakenly, that is to say, from the point of view of these particular editors.

palaeographically unconnected with the original is made.

* * *

As epigraphists have returned to old texts to study them over and over in an effort to complete every lacuna, it is not unnatural that the use of dotted letters should have steadily increased. With this increase there have arisen two dangers in the use of dots beneath letters: 1) a dotted letter may sometimes be used when there is almost negligible evidence of the original letter; and 2) when the evidence is clear, but the editor disregards it by reading a different, and dotted, letter. This comes about particularly when there is a difficult and baffling passage which the editor is unable to cope with on the basis of the evidence, but which he believes he can solve if the letter or letters which he dots are changed.

Both of these dangers stem basically from a kind of *horror vacui*, a dislike of blank areas, an effort to complete all lacunae. Several examples will illustrate these two points.

The first example contains two illustrations of the first misuse of the dotted letter. Here the word in which the dotted letters occur gives the key to the date of the document. The epigraphist who introduced the dotted letters was thereby enabled to assign a new date to the inscription, and the historians, accepting this new date, at once fitted the document into their framework of fifth century history.¹³ This case will be discussed in some detail because of its long history.¹⁴

In 1867 Ulrich Koehler (*Hermes* 2, 16) published the text of the document in question which was a fifth century Athenian decree. The archon's name was inscribed in line 3. Koehler stated that the last letter of this name, a *nu*, was clear on the stone; an *omicron* preceding, less so. And in the third letter-space from the end he believed he could recognize possible traces of a circular letter. Both here and in *IG* I, 20 (1878), the third letter was printed in the form of a broken *omicron*. The decree is the Athenian copy of an alliance between Athens and Egesta. The sole clue to the exact date of the document depended on the reading of this one name. Koehler carefully described as much as he could see, although his commentary in other lines was very brief.

¹³ Meritt, Wade-Gery, and McGregor, *ATL* 3, 304.

¹⁴ A discussion of this inscription has appeared in *CP* 47 (1952) 263.

¹⁵ *Δελτίον* 1891, 106: — — — ἐξετάσας δὲ μὲν αὐτὰ ἐπαλειψαμένως πείσεται ὅτι προέρχονται ἐκ τῆς ἑνεκα μεταγενεστέρης

In 1891 Lolling (*Δελτίον* 105-108) republished the inscription and devoted considerable space to the text of this one name. He proposed to restore the name [*Ἀρίστ*]ων, regarding only the final two letters as at all certain. Koehler's reading of the third letter from the end was discussed by Lolling in detail. The reference to a circular letter he understood as meaning an *omicron*, a *theta*, or a *phi*. Lolling wrote: "Having examined these (the traces in the third letter-space) repeatedly, I am convinced that they result from wear during later re-use of the stone, because they do not correspond in size to the other circular letters in the same inscription."¹⁵ Here we have the considered judgment of a careful scholar who was working from the stone. More recently Lolling's restoration of [*Ἀρίστ*]ων was repeated by Hiller in the *editio minor*.¹⁶

The next step in the history of this document—and it is this step which concerns us particularly here—was the 1944 publication (*TAPA* 75 [1944] 10) by Raubitschek, who now proposed the name of a different archon (458/7 B.C.). The actual evidence for this new reading is given only in a footnote, as follows: "U. Koehler, in the first publication, noticed the traces of another round letter before the *omicron*. An examination of the squeeze of this inscription reveals also traces of an upright stroke in front of the round letter, and the restoration [*ha*]βρον may be tentatively suggested." Both the *beta* and the *rho* were read as dotted letters. There was no statement about other possibilities. A few years later, in *SEG* 10, 6, the restoration was no longer "tentative" in Raubitschek's eyes, for Klaffenbach, using a Berlin squeeze, had informed Raubitschek that a sure *alpha* could be read in front of the dotted *beta*. The Berlin squeeze conveniently filled the gap left by the Princeton squeeze. The composite reading, then, from the Princeton and Berlin squeezes, was [*h*]άβρον, with only the aspirate bracketed.

There is one more publication of the document, that in *Hesperia* 17 (1948), by Woodhead, who gave no independent report of the text of the critical name. Woodhead stated (p. 59), "Raubitschek finds traces of βρ before ο in the archon's name. In conformity with this the treaty is now dated to 458/7 B.C." It is worthy of note that he gave no personal judgment about these critical letters.

χρήσεως τοῦ λίθου ἀποτριβῆς τῆς ἐπιφανείας αὐτοῦ, διότι καὶ κατὰ τὸ μέγεθος δὲν οὐμφωνοῦσιν ἀκριβῶς πρὸς τὰ ἄλλα ἐν τῇ αὐτῇ ἐπιγραφῇ κυκλοτερῆ ψηφία.

¹⁶ *IG* I², 19, line 3.

The present writer has had the opportunity of examining the stone under various conditions in the Epigraphical Museum, and has studied the text on a latex squeeze. Because of the importance of the text, I felt it advisable to have also the testimony of other epigraphists, who were asked to examine the document carefully with an unprejudiced eye. Of what was read on the Berlin squeeze as an *alpha*, there is not a trace on the stone. In the fourth letter-space from the end, there is a deep vertical stroke in the middle of the letter-space which Professor Vanderpool first called to my attention as being deeper than the incised letters, and surely a scratch. A photograph of a translucent latex squeeze, which reproduces every mark on the stone today, is given in plate 33, A. The line in question is the second line on the squeeze. In any case this scratch is not in a position for a *beta*. The distance from the left hasta of the *nu* to the vertical stroke is exactly 0.04 m. In the next word, *ερχε*, if we measure from the vertical of the second *epsilon* 0.04 m. across the *chi* and the *rho* we come to the very middle of the first *epsilon*. Hence, if our stroke had been part of a real letter, one could read it as part of an *iota*, a *tau*, or a *phi*; and if one is to consider it as the upright of a *beta*, but not in its proper position, it could be part of any one of a number of Greek letters. Plate 33, B shows two strips cut from a latex squeeze and brought together so as to show the position of this stroke exactly in the middle of the letter-space. In the third letter-space from the end there are no sure traces; one or two curving scratches are barely discernible. These are certainly not in a position for a *rho*, for they are in the left part of the letter-space rather than the right. The substance of this description has been confirmed by several epigraphists, including Professor Vanderpool and Dr. Mitsos.

The history of the text of this archon's name demonstrates the misuse of dotted letters when there is really negligible evidence of original strokes. The *beta* which was dotted should never have been published outside of square brackets. If one wants to maintain that the vertical scratch in the middle of the letter-space is part of a malformed *beta*, the same argument could be applied to numerous letters in the Greek alphabet. In the case of the dotted *rho*, two observations may be made. In the first

place, the stone itself now affords no evidence for the reading of any letter; the surface is smooth. In the second place, the clear statements of two scholars who had examined the stone itself were disregarded: the editor, to be sure, invokes the support of Koehler's description, but it is a far stretch to interpret Koehler's majuscule broken *omicron* as a *rho*; and Lolling's more recent observation that there were no traces of an original letter is passed over in silence, though reference is made to him in the bibliography.

In my opinion it is clear that the stone is not going to give the evidence of what name is to be read. The epigraphist *qua* epigraphist would mislead the historian if he pretends that the stone has the answer. Wear on the surface has obliterated the name of the archon, and the epigraphist and the historian must accept this fact.

The second example also illustrates the first danger, the reading of a dotted letter where the traces do not justify it. The inscription in question is a fifth-century Athenian decree conferring the privilege of public maintenance in the Prytaneion on several groups of people.

The word we propose to discuss is critical for determining whether or not the *exegetai* were granted the privilege. The word is an aorist form of the verb *ἀναιρέω*, of which the letters *ἀνελ-* are clear. The two possibilities are the subjunctive *ἀνέλῃ* (Attic: *ἀνέλει*) or the indicative *ἀνέλεν* (Attic: *ἀνέλεν*). If the indicative is used, several proposed texts for this inscription, including the most recent, must be rejected.

Wade-Gery apparently resolved the problem by reading the form *ἀνελ[ε]ν*.¹⁷ In his text he read a dotted *nu*,¹⁸ and in his commentary he stated: "I believe a trace of this N can be read on the stone." He does not state in what part of the letter-space the trace occurs, although the two possibilities, *nu* and *iota*, are almost mutually exclusive.

I have examined the stone repeatedly and have sought the opinion of other scholars; but we have been unable to see any trace of an original stroke in this letter-space. A latex squeeze, showing the space in question, is published in plate 33, C (the fourth line).¹⁹ Here again the stone simply does not permit us to make a decision.

The second danger in the use of dotted letters is

¹⁷ BSA 33 (1932/3) 126.

¹⁸ In SEG 10, 40, the dotted *nu* has become a certain *nu*.

¹⁹ Because of its importance the inscription has received special study in the past three years by Jacoby (*Atthis* [Oxford 1949]

8 and 238), Oliver (*The Athenian Expounders* [Baltimore 1950] 139-141), and Ostwald (*AJP* 72 [1951] 24-46). Attention should be called to the fact that Ostwald (p. 38) rejected Wade-Gery's text on the ground that the *nu* movable

the tendency toward deliberate alteration of clear letters. In illustration of this danger I shall offer three examples from the area of Attic prosopography, in which this tendency is particularly rife. With the discovery of the names of hundreds of Athenians which have been copied from Agora texts, there is a natural desire to complete all broken names and to construct new stemmata. In each example chosen the evidence on the stone is, I believe, certain, and it has been so reported. But a clear letter did not permit the first editor to read a name which he recognized. The later editor substituted a different, but dotted, letter in order to cut the Gordian knot.

In *Prytaneis*, no. 28, Dow published the name of one of the councillors of the deme of Marathon as Μ.ΤΙΝΟΣ. The six letters were reported as certain; no restoration was offered for the missing letter in the second letter-space. Independently, Peek²⁰ and Raubitschek²¹ changed Dow's text to read Χ[α]ρίτων and Μαχίτων, respectively. Both scholars wished to complete the broken name. For Peek, Dow's *mu* became a dotted *chi* and Dow's *upsilon* a dotted *rho*. For Raubitschek, Dow's *upsilon* became a certain *chi*, and for the second letter a dotted *alpha* is introduced.

The stone and a latex squeeze in plate 33, D (the sixth line of the photograph) clearly show that the first letter is indeed a *mu*, for parts of all four strokes of the letter are preserved. What Dow read as an *upsilon*, Peek as a dotted *rho*, and Raubitschek a certain *chi*, is in the form of the upper part of an *upsilon*, and indeed seems to have the upper tip of the vertical.

Whatever one may wish to do about this difficult name, a clear *mu* cannot be a dotted *chi*; and the v-shaped letter in the third letter-space cannot be a dotted *rho*. Nor can the damaged surface of the second letter-space become a dotted *alpha*.

The second example is from line 44 of the same inscription (the fourth line of the photograph in plate 33, D). Dow reported the name as ΕΦΑΠΠΗΣ, and printed it in capital letters to indicate that it was to him an unknown combination of letters. Peek has changed the reading to "Εφ[ι]πος,"²² a

reading in which we are here concerned only with his dotted letter, in this case an *omicron* in the next to last letter-space. Peek substitutes this dotted *omicron* for Dow's certain *eta*, although there is no clearer letter on the stone. Had Peek had access to a photograph of the sort we publish here, we venture to think that he would not have convinced even himself that the two upright strokes with connecting horizontal bar resemble an *omicron*.

The third example is from an inscription published by the present writer in *Hesperia* 9 (1940) 123. The name of the councillor of the tribe Hypothontis in line 37 was transcribed as Θεοχμωος. The inscription contains many errors of the stonemason, and it was suggested in the commentary that there might be some error in this name. Peek has now proposed a solution and he changes the text to Θεό<δ>ω<ρ>ος.²³ The angular brackets indicate that Peek believed the mason had made two errors and that the *chi* is to be corrected to *delta*, the *iota* to *rho*. No one can take exception to this usage of changing the reading on the stone when angular brackets are used to warn the reader. But exception must be taken to reading a clear *mu*, which the reader can see on the photograph of a translucent latex squeeze in plate 34, A (the fifth line), as a dotted letter, an *omega*. It is again the use of a dot which permits the reviser to offer an impossible reading with impunity. Not even the boldest corrector would have read the *mu* as a clear *omega*; but the dot permits the editor to feel he is not committing himself quite irretrievably.

Before we make suggestions about possible remedies for these evils, we would like to emphasize that, with only one exception, all of the editors who introduced the dotted letters in the examples considered here have failed to discuss in any way the evidence of the letter or letters in question. They do not explain just what they have seen on the stone or the squeeze which has led them to make the new reading. In all cases where the text hinges on a dotted letter, the epigraphist should submit himself to the discipline of describing exactly what he sees on the stone, and to explain for those who follow him just what are the possibilities.

is not used in this document. Oliver (p. 141) and Ostwald (p. 37) both err, I believe, with respect to a matter of Greek syntax in holding that a future participle is required in line 9 to get the meaning that Schöll wants. Such a future participle would be most awkward; see Gildersleeve, *SCG* 2, 138-143. Cf. Kühner-Gerth, *Griechische Grammatik* 2, 52; Humbert, *Syntaxe grecque*, pars. 234-238; Schwyzler, *Griechische Grammatik* 2, 295-296. In a search through various lexicons

I have found no examples of ἀναπέω in its oracular sense with future participle. Another effort to read this letter, this time from a paper squeeze, has been reported in *AJP* 74 (1953) 416.

²⁰ *AM* 67 (1942) 162.

²¹ *Hesperia* Index, Volumes 1-10 (1946) 103.

²² *AM* 67 (1942) 162.

²³ *AM* 67 (1942) 163.

If, for example, Peek, when he introduced a dotted *omega* into the *Hesperia* 9, 123 text, had taken the trouble to put down on paper what he saw on the stone, he would probably not have offered this particular solution, for he himself would have realized how unfounded it was.

* * *

The present writer does not feel he has the definitive solution to the various problems which arise in the usage of dotted letters. But there are, perhaps, certain measures which will help to minimize the dangerous tendencies which result from a too-ready use of dotted letters. These are briefly:

- 1) Careful description of all traces
- 2) Soliciting the unprejudiced opinion of other scholars
- 3) The use of photographs of translucent latex squeezes
- 4) Greater use of square brackets

The first point has been mentioned above. It is based on the conviction that complete accuracy can be achieved only when a scholar forces himself to be absolutely precise both in his observation and in his reporting.

The second point is a plea for more cooperation among scholars. The judgment of a single epigraphist is not really enough when an important reading is at stake. With the best will in the world it is hard for the epigraphist to maintain objectivity. Very often he approaches his problem with a preconceived idea, into which, all unconsciously perhaps, he attempts to fit the actual evidence. To minimize this hazard of wishful thinking he should solicit the free and unprejudiced opinions of his colleagues.²⁴ If several competent epigraphists, after careful examination of the stone or squeeze, concur on the identity of an important letter, their combined opinion should carry far more weight with other scholars than would the single opinion of any one of them. If there is a difference of opinion, it is only fair to acknowledge it in print.

The third point emphasizes the need for bet-

ter visual material. A really good photograph or squeeze will go a long way to resolving doubts about difficult readings. For purposes of publication I have found that photographs of translucent latex squeezes reveal faint traces more clearly than any other medium, a statement which I can best support by affirming that such photographs have sometimes revealed more to me than the stone itself. The much-disputed *mu* in plate 33, D, for instance, comes out unmistakably on the latex squeeze and effectively ends all argument as to the identity of this letter.

Last of all, though the scholar may suffer from a kind of sense of defeat if he is unable to resolve a given problem, it is far better to leave the field free for others later, when more evidence may become available, than to introduce possible errors which may becloud the issue for years to come. Square brackets, which were far more widely used fifty years ago than they are today, still offer a safe and simple solution to many epigraphical problems, and I believe if there were less reluctance to put letters into square brackets our studies would be in a healthier state today. The dotted letter should always represent a very distinct possibility; never a mere guess. The mind of the reader is always inclined to accept everything outside of square brackets as practically certain, and he should be misled as little as possible. Much more mischief is worked by over-ambitious filling-in of spaces than by leaving them blank or using square brackets.

American epigraphists have of late been accused of leaning rather too heavily on the technical side of their studies, to the detriment of interpretation. But even a brilliant interpretation will avail us nothing if the text on which it is based is incorrect. Even such a seemingly small matter as the dotting of letters is worthy of our thoughtful attention if full accuracy and truth are to be attained.

UNIVERSITY OF CALIFORNIA
SEPTEMBER 1952

²⁴ I have tried to put this principle into practice in my own work. In a study which involved corrections and new readings in certain texts which had received several publications, I

sought in each case the opinion of three scholars before publishing the emended text (see the acknowledgment in *Calendars of Athens* viii).



N E C R O L O G Y

GEORG LIPPOLD, Professor (emeritus since April 1, 1953) in Erlangen, died on July 24, 1954, as the consequence of a traffic accident, in his seventieth year.

Born February 21, 1885, in Mainz, the son of a judge of the supreme court, he studied in Munich and Berlin and acquired his Ph.D. at Munich in 1907 with a dissertation on the forms of ancient shields: *Zu den Schildformen der Alten*. Written at the suggestion of his teacher Adolf Furtwängler, it appeared as "Griechische Schilde" in the *Münchener Archäologische Studien* (1909) 399-504, studies dedicated to the memory of the eminent archaeologist, who had planned this volume in his lifetime. In 1912 Lippold published a short but concise book on Greek portrait statues, *Griechische Porträtstatuen*, which was his *Habilitationschrift*, submitted in order to be admitted as lecturer at the University of Munich.

Lippold became professor extraordinary at Munich in 1919, and in 1920 at Erlangen, where he lived until his death, as a full professor and director of the Archaeological Institute since 1925. In 1922 he published *Gemmen und Kameen des Altertums und der Neuzeit* with enlarged illustrations. He won a prize with his *Kopien und Umbildungen griechischer Statuen* (1923) solving the task set by the Munich Academy of Science for a paper which was to present and organize systematically and chronologically the stylistic and other transformations applied by ancient copyists and art schools to the monuments rendered or used by them. Lippold has not solved this important task in its full meaning, but he has made very important contributions to a research begun by Furtwängler, and not yet finished today.

After the death of Walter Amelung in 1927 Lippold was chosen to continue the Catalogue of the sculptures, in the Vatican Museum. His *Die Skulpturen des Vatikanischen Museums*, vol. III, 1 (1936) is a masterpiece of exact description and evaluation of each piece, with complete bibliography, partly built on notes of his predecessor. But he found no preparations for vol. III, 2, which is in the press and will certainly be of the same or even higher quality. Another inheritance are the extensive Bruckmann publications, in which Lippold had assisted Arndt since 1926, and which after the death of Arndt in 1937 he took over completely: *Denkmäler der griechischen und römischen Skulptur*, until 1947; *Griechische und römische Porträts*, until 1942, and *Einzelaufnahmen antiker Skulpturen*, to date.

Among earlier important papers are: "Zur Arbeitsweise römischer Kopisten," *RM* 32 (1917) 95-117; "Ikonographische Probleme," *ibid.* 33 (1918) 1-30; "Musengruppen," *ibid.* 64-102; "Das Petersburger Nibidenrelief," *ibid.* 34 (1919) 17-23; "Zur griechischen Künstlergeschichte," *JDAI* 38/39 (1923/24) 150-158; "Zu Cavalleris," *ibid.* 40 (1925) 161-166; "ΤΥΠΟΣ," *ibid.* 206-209; "Sarapis und Bryaxis," *Festschrift Paul Arndt* (1925) 115-127; "Zu den Imagines Illustrium," *RM* 52 (1937) 44-47; "Eukleides" *ArchEph* (1937)

254-255; "Athenion," *Scritti in Onore di B. Nogara* (1937) 242-245. Many pithy book reviews appeared in the *Gnomon*, *Philologische Wochenschrift*, and *Deutsche Literaturzeitung*.

In the last five years of his life Lippold was particularly active. He wrote papers on a number of diverse subjects: "Ladas" in *Sitzungsberichte der Bayrischen Akademie der Wissenschaften, Phil.-Hist. Klasse* (1948, appeared 1949) Heft 6, pp. 1-34; "Perseus," *ibid.* (1953) Heft 5, pp. 1-6; "Antike Meisterwerke aus der Pfalz" in *Pfälzer Heimat*, Heft 1-3 (1950) pp. 3-20; "Zur Laokoongruppe," *JDAI* 61/2 (1950) 88-94; "Heilende Schlange" in *Studies presented to David M. Robinson*, I (1951) 648-654; "Ausgrabungen auf der Akropolis" in *JDAI* 39 (1952) 62-65; "Zum Schwert des Tiberius" in *Festschrift des römisch-germanischen Zentral-Museums*, 1952, pp. 4-11; "Vasen und Münzen," *JDAI* 67 (1952) 78-98; "Der Plaste Sotades" in *Münchener Jahrbuch* (1952/3) 85-95.

The most important work of Lippold is the volume on Greek Sculpture in the *Handbuch der Archäologie*, III, 1 (ed. Walter Otto and Bernhard Herbig, Munich, 1950). This comprehensive volume (441 pages, 136 plates) is built on research of a lifetime. Lippold was particularly equipped for this task through the publication of the three Arndt-Bruckmann series and many articles on sculpture in Pauly-Wissowa, *Real-Encyclopädie*. There is hardly any sculptured Greek work of art missing. Although, as the writer of this necrology had said in several letters exchanged with the author, there are many attributions to places and artists which can be disputed, the volume is an astonishing, learned, and most useful handbook. The author, very open-minded, has collected new material and corrections for a possible second edition, and it is to be hoped that his successor in Erlangen, Professor Züchner, will make use of these notes for a supplement.

A kind of supplement to Lippold's *Kopien und Umbildungen*, dealing with statues, are his "Antike Gemäldekopien," *Abhandlung der Bayrischen Akademie der Wissenschaften, Philosophisch-historische Klasse, Neue Folge*, Heft 33 (1951) (164 pages, 24 plates with 132 illustrations), dealing with copies of Greek paintings: in wallpaintings, mosaics, sarcophagi, and even vase paintings which, however, are only used as being reflections of masterpieces of great paintings by Polygnotos, Nikias, Philoxenos, and so on. The uncertainty as to what belongs to the original is still greater than in the copies of sculpture.

Lippold was a warmhearted and helpful man, often hiding his softness under a rough surface and ironic speech. He liked to tell a fib, but his large boyish blue eyes betrayed his gay spirit, and he was delighted when people did not believe him. Lippold and the writer of this necrology have been friends since they were fellows of the German Archaeological Institute together in 1909, and from our first common excursion in Greece to our last meeting in Rome in 1950 we have had many oral and written discussions where

his honesty in sticking to convictions and his readiness to admit errors came out again and again. His friends mourn for him with his only son, his three daughters, and his beloved thirteen grandchildren.

MARGARETE BIEBER

COLUMBIA UNIVERSITY

LUDWIG CURTIUS died on April 10, 1954 in Rome, at the age of almost eighty years.

Curtius was born December 13, 1874 in Augsburg as the son of a physician; his mother was the descendant of a family of farmers. He studied archaeology in Munich under Adolf Furtwängler. He received his Ph.D. degree in 1902 with a thesis *Die antike Herme, eine kunstgeschichtliche Studie* (Leipzig 1903). This research in the history of the herm is the best paper ever written on a subject which still today offers unsolved problems. In 1907 he became lecturer in Munich, and in 1912-13 he, together with Johannes Sieveking, edited the small papers (*Kleine Schriften*), Munich, 2 vols., of their teacher Furtwängler. He became Professor Extraordinarius in Erlangen 1908, Ordinarius *ibid.* 1912, in Freiburg 1918, and in Heidelberg 1920. He became director of the German Archaeological Institute at Rome in 1928 and stayed there as such until Hitler dismissed him in 1937. The library was confiscated in 1945 and put under the custody of the United Nations in 1947. Curtius continued to live in Rome until his death, actively doing research, writing, lecturing, and always surrounded by an international set of younger and older colleagues. The writer of this obituary had wonderful scientific exchange with him while in Rome in the winter 1951/2, admiring his always alert and creative mind.

The interests of Curtius embraced Oriental, Egyptian, Greek, Graeco-Roman and Roman art. A study in the history of old Oriental art he published in 1912 in the *Sitzungsberichte* of the *Bayrische Akademie der Wissenschaften*, phil.-hist. Classe (Munich 1912) no. 7. For the *Handbuch der Kunstwissenschaft*, published by the Akademische Verlagsgesellschaft Athenaion, he wrote vol. I on Egypt and West Asia (*Aegypten und Vorderasien*, Potsdam, 1923) and vol. II, part 1 on the classical art of Greece (*Die klassische Kunst Griechenlands*, Potsdam, 1928). In the period from 1925-1933 he was editor of the most important German critical periodical, *Gnomon*.

His interest extended also to ancient painting. In his *Pentheus*, the 88th *Winckelmanns-Programm* of the Archaeological Society of Berlin, 1929, he tried to reconstruct from vase painting a frieze of the late fifth century, inspired by a tragedy or a chorus song, depicting the death of Pentheus. In his book on Pompeian painting (*Die Wandmalerei Pompejis. Eine Einführung in ihr Verständnis*, Leipzig, 1929) he has contributed greatly to the understanding of the much discussed wall paintings, the dates of the four styles, and the relationship of the Roman execution to the Greek models which underlie many details of the Roman compositions. By a clear analysis of many of the paintings, illustrated with ample black-and-white

and colored pictures, he has furthered the right evaluation of a number of celebrated paintings.

Otherwise Roman art interested him particularly in the field of portraiture. Articles on portraits of the Roman republican period and of members of the Julian-Claudian family (*Ikongraphische Beiträge zum Porträt der römischen Republik und der julisch-claudischen Familie*) appeared in the *Römische Mitteilungen* of the German Archaeological Institute from 1932-1948. He attacked the difficult problems of Roman copies in an ingenious way in his *Zeus und Hermes, Studien zur Geschichte ihres Ideals und seiner Ueberlieferung* (Munich, 1931) first supplementary volume (Ergänzungsheft) to the *Römische Mitteilungen*. The history of the ideal of the heads of Zeus and Hermes, and the tradition through Roman copies is treated in a very original and stimulating way. His beloved Rome, where he lived his last 26 years, he described in the book *Das antike Rom*, text to the photographs by A. Nawrath (Vienna, Schroll, 1944). He also wrote an introductory note to Carl Lamb, *Die Tempel von Paestum* (Leipzig, Inselbücherei no. 170, 1944).

The interests of Curtius were not confined to the ancient world. He was a great admirer of Goethe, and in 1932, at the 100th anniversary of the death of Goethe, he gave to the Goethe-Societies of Rome a lecture on *Goethe als Erscheinung*, Goethe as a phenomenon. He made a selection of Goethe's writings and translated them for the book by Hermann J. Weigand, *Johann Wolfgang von Goethe, Wisdom and Experience* (New York, Pantheon, 1949). A lecture given in Cologne University in 1933 appeared under the title *Mussolini und das antike Rom* (Köln, Petrarca-Haus, 1934).

During his last years several of his articles were printed in the *Mitteilungen des Deutschen Instituts* which replaced the suspended *Römische Mitteilungen*. In Switzerland appeared his Interpretations of six Greek Works of Art (*Interpretationen von sechs griechischen Bildwerken*, in the series *Ueberlieferung und Auftrag, Reihe Probleme und Hinweise*, vol. 6, Bern, A. Franke, 1947). His autobiography: *Deutsche und antike Welt, Lebenserinnerungen* (Stuttgart, 1950) is full of the wisdom which old age brings.

Curtius was honorary member of the Accademia dei Lincei and of the Accademia Pontificia di Archaeologia in Rome. He was corresponding member of the Academies of Science in Heidelberg, Göttingen, Munich, Padua, and Stockholm. More honors awaited him for his eightieth birthday. Already for his sixtieth birthday in 1934, friends and pupils gave him a large volume which appeared as *Corolla Curtius* (Stuttgart, Kohlhammer, 1937) with an introductory letter by H. Bulle, and with contributions by many remarkable German scholars besides Bulle: P. Arndt, E. Boehringer, L. Deubner, A. von Gerkan, R. Herbig, R. Horn, G. von Kaschnitz-Weinberg, G. Rodenwaldt, A. von Salis, B. Schweitzer, etc. His seventieth birthday was celebrated in 1944, under the auspices of the director of the Swedish Institute, Professor Erik Sjöqvist, now in Princeton, despite the world war, by archaeological scholars of both sides, American, British, German,

Italian, French, Swedish, etc. The first volume of the again-to-be-published *Römische Mitteilungen* was to be dedicated to Curtius as his *Festgabe* for his eightieth birthday. The reopening of the German Institute, in December 1953, in the presence of an international audience, was one of his last joys. He had been scheduled for April 21, ten days after his death, to deliver the festival lecture *Griechische Götterideale*, Greek Ideals of Gods, at the occasion of the 125th anniversary of the German Archaeological Institute. It is to be hoped that this and other projects, which the writer of this necrology had the pleasure of discussing with Curtius, was left in a shape which allows their publication. In any case there applies to him what Karl Förster (died 1841) said: "What has passed away, does not return. But if it went down in brilliance, it will shine for a long time."

Was vergangen, kehrt nicht wieder;
Aber ging es leuchtend nieder,
Leuchtet's lange noch zurück.

MARGARETE BIEBER

COLUMBIA UNIVERSITY

GEORGE HAROLD EDGELL, Director of the Museum of Fine Arts in Boston, died at his home in Newport, N.H., on June 29, 1954, at the age of sixty-seven. He was born in St. Louis, Mo., on March 4, 1887, and was graduated from Harvard College in the Class of 1909. After a year of graduate work at Harvard, he spent two years (1910-12) as a Fellow at the American Academy in Rome, and then returned to Harvard for his Ph.D., which he obtained in 1913. From then until 1935, the year of his appointment to the Directorate of the Museum, he remained at Harvard as Instructor (1912-14), Assistant Professor (1914-22), Associate Professor (1922-25), and Professor (1925-35)—all these appointments being in the Department of Fine Arts. In addition, he was Dean of the Faculty of Architecture and Chairman of the Council of the School of Architecture from 1925 to 1935. From 1934 till 1938, before and after his appointment as Director, he served the Museum of Fine Arts as Curator of Paintings. In 1948 Harvard conferred on him the Honorary Degree of Arts D., and in 1937 he was decorated Chevalier of the Legion of Honor. During

World War I, he was the American Commissioner of the Interallied Commission for Propaganda, attached to the Italian General Staff.

Edgell's publications are largely in the field of Italian Art, and his *History of Sienese Painting* (1932) is the supreme authority in that field; but of equal importance is *A History of Architecture* (1923) written in collaboration with his Harvard classmate, Fiske Kimball, which has served as a textbook for generations of undergraduates. This JOURNAL has published many important articles from his pen, as well as other periodicals dealing with art, both in this country and abroad.

Edgell travelled very widely both in Europe and Asia, especially after his appointment to the Museum of Fine Arts, and his annual Reports as Director will reveal to the curious the extent of these travels. But while at Harvard, he had also gone abroad as Annual Professor at the American Academy in Rome in 1919-20, and as Exchange Professor at the University of Paris in 1929.

The last years of Edgell's life were marked by personal tragedies, bravely borne. A son met his death in an automobile accident in the 1930's, and in the middle to late 1940's he began to have warnings of the heart condition to which he ultimately succumbed. Finally, in 1953, his wife, whom he married in 1914, was killed by being thrown from her horse. Their life together had been devoted and ideally happy, and it may well be said that this catastrophe hastened his own end.

The writer of this notice was, like Kimball, a Harvard classmate of Edgell's, and we received our Ph.D.'s in the same year as well. Edgell was a warm friend to those to whom he gave his friendship, and his devotion to Harvard was steady and faithful. He was probably the most popular lecturer in Boston, and his courses of lectures, given each winter at the Museum, were always crowded to the doors—and he won not merely the applause, but the friendship, of his audiences. He was a loyal member of the Archaeological Institute in its Boston Society, and his interest in our aims was profound and constructive. The Institute would add its few words of sympathy to the many received by his two surviving sons.

S.B.L.



BOOK REVIEWS

CORPUS VASORUM ANTIQVORVM. France fasc. 17, Louvre fasc. 10. By François Villard. Pp. 87-103; 1-12; pls. 94-119 (III He); 1-22 (III Ib). Librairie ancienne Honoré Champion, Paris, 1951.

In this fascicle of kylikes, François Villard, an expert on the shape, has published in forty-eight plates a hundred and one black-figured cups, forty red-figured ones and a red-figured plate. The black-figured section continues where the late Plaoutine had left off and gives us all the eye cups and the cups derived from this shape. Half of them are numbered with the prefix C, the latter employed for the new Campana vases which Villard has succeeded in resurrecting from the vast repository of Campana fragments. The black-figured cups are arranged strictly by shape, no longer by provenance (as in the ninth Louvre fascicle). In the red-figured section, for which the symbol III Ib is introduced, a different procedure has been followed. Villard has taken six of the earliest cup painters and reproduces their works as represented in the Louvre, together with ten other cups or fragments close to them. The sequence is, in the main, that of *ARV*. Again, as in the black-figured section, many of the cups were put together by Villard. Sir John Beazley's own work on the Campana fragments began on a large scale in 1950 and has, as indicated by Merlin in the preface, led to many new joins and attributions of which the first results could luckily be incorporated in this fascicle. But many more fragments have since been found, and it is to be hoped that the more recent results which affect a good many cups in this section can be presented elsewhere or in a later fascicle, even if it means partial republication.

A happy innovation in this fascicle is the addition of accession numbers on the plates and the elimination of those quaint printer's symbols by which, up to now, views of the same vase had to be identified. In two other respects, however, the plates do not differ from those of the earlier fascicles: the backgrounds have been cut out, and many of the vases have been photographed without being cleaned and freed of disturbing restorations. The collotypes themselves, on the other hand, have printed remarkably well and without much loss of detail.

The text is pleasantly concise, limiting itself to descriptions, measurements, bibliographies, attributions, and dates. The inscriptions are only in two instances given in facsimile; the others are rendered in Attic capitals. The following notes give some minor addenda and corrigenda.

(III He) Pl. 94, 6: the warrior on the left wears a short chiton, a nebris and greaves. Pl. 94, 8: the feline animals are panthers. Pl. 95, 4-5: some of the warriors also wear thigh-guards. Pl. 97, 5: the warrior is not necessarily Dionysos, as the animal skin is also worn by mortals. Pl. 97, 8: does the warrior really have a bow? Pl. 100, 1: has one of the fragments been cropped

too closely? The second circle on the rim has disappeared. Pl. 103, 9: add to the bibliography De Witte, *Notice* . . . (1845) p. 22, no. 66. Pl. 105, 2: does not the youth carry a diskos rather than a stone? Pl. 105, 4 and 6: a courting scene (listed by Beazley, *Some Attic Vases in the Cyprus Museum*, p. 15, a 33). The α of the graffito has a slanting cross-bar. Pl. 107, 3: right leg rather than left. Pl. 109, 9: the term 'hermaphrodite' is perhaps not happily chosen in the description of the foot. The companion piece in Berlin is published in Vorberg, *Glossarium Eroticum*, pp. 486-488. Pl. 110, 3: not necessarily a combat; perhaps a warrior taking leave. Pl. 110, 8: is Dionysos perhaps seated? Pl. 110, 11: under the handles, birds. Pl. 111, 4, 5, 7: the left leg of a god behind Athena is preserved. The figure in front of the horses should be Hermes. Pl. 113, 9-10: the shield is a pelta. Pl. 115, 12 and 13: the captions have been reversed. Pl. 116, 4: the shield device is a human leg. Pl. 119, 5: the object behind the satyr is a flute case.

(III Ib) Pls. 1-7, 1 (Oltos): no references are given to Ada Bruhn, *Oltos and Early Red-figure Vase Painting*. Pl. 2, 1: for main droite read main gauche; for la gauche read la droite. Pl. 2, 4-5: both sirens wear earrings. Pl. 3, 2: now augmented. Pl. 2, 7-8: both women wear earrings. Pl. 4, 6: the ancient parts of the interior give the forehead, nose and eye, left arm and breast, right forearm, the lower half of the right shank and the foot, the far lower edge of the dress, and the left heel. Pl. 4, 4: part of the rim of Achilles' shield is preserved. The sigma in the retrograde inscription of Aeneas is missing. Pls. 5-6: this cup is now cleaned (cf. photos. Arch. phot. 5-4240-001-AE-BE-CE-1). The inscription in the interior reads ΜΕΜΝΩΝ [καλ]-06. The alphas of the inscriptions on the exterior have slanting cross-bars. Pl. 7, 1: the tondo is now complete. Pl. 7, 2-6: to the bibliography add De Witte, *Notice* . . . (1845) 20, no. 59. Pl. 8, 2: is the subject with certainty a horseman? The animal looks more like a deer and I see no traces of a rider. Pl. 8, 7: the tip of the nose is preserved. Pl. 9, 2, 3, 5-8 and pl. 10, 1: add to the bibliography *JDAI* 44 (1929) 172, Pl. 10, 2-9: the archers and the fifth maenad appear to be wearing shoes. Pl. 11, 3: the exterior has been attributed by Beazley to the Euergides Painter. Pl. 11, 4: for 10472 (in the text) read 10471. Pl. 12, 1: the handles have been found and joined to the cup. Pl. 12, 2-6: the cross-bar of the alpha is slanted. Pl. 13, 2: no mention is made of the preliminary sketch which is that of a different picture. Pl. 14, 6: to the bibliography add *BSA* 46, pl. 16b. Pl. 16, 4: the komast is infibulated. Pl. 17, 3: the object in the middle is a giant phallos. Pl. 18, 1-3: this cup has since been augmented. Pl. 19, 1: more fragments of this cup have been found. Pl. 19, 5: the satyr does not seem to crouch, but to dance, ἀποσκοπεῖν. Pls. 20-21: for Bowdoin Painter read Bowdoin-Eye Painter. Pl. 20, 5 (for S 1368 read S 1386): this fragment has been joined to pl. 20, 1. Another fragment, since found, gives the

missing part of the right arm and the left shoulder and part of the left arm. Pl. 20, 6-8; other fragments now incorporated give most of the right palmette, the pick and the right eye of A (pl. 20, 6) and parts of the left eye and palmette of B (pl. 20, 7). The interior, here figured separately (pl. 21, 1) belongs to this cup. Other fragments added to the tondo, show the feet of the banqueter. Pl. 21, 2-6: this cup must be from Vulci, as it is listed in De Witte's *Notice* . . . (1845) 26, no. 84. B is also illustrated in Vorberg, *Glossarium Eroticum*, p. 160.

DIETRICH VON BOTHMER

THE METROPOLITAN MUSEUM OF ART

GANYMED. MYTHOS UND GESTALT IN DER ANTIKEN KUNST, by Hellmut Sichtermann. Pp. 128, pls. 16. Distributed by Verlag Gebr. Mann, Berlin [1952?] D.M. 10.00.

This work is a Berlin dissertation, begun under the late Gerhart Rodenwaldt and finished, after an interruption of over six years occasioned by the military service and imprisonment of its author, in 1948. It is the first volume in a series of select dissertations currently being published by the German Archaeological Institute.

Its subject is the treatment of the Ganymede myth in art from its first appearance, on vases of the second half of the sixth century B.C., to the end of the Roman period. Naturally, the representations of Ganymede's carrying off by the eagle, which dominate art from the fourth century B.C. on, receive the most attention, and the author's attempt to reconstruct their common inspiration, which he assumes was the work of Leochares described by Pliny, is the most interesting part of the book. He bases it not on the heavily restored Vatican group, but on a number of works that vary in detail but resemble each other to a certain extent in composition: two bronze feet from utensils, one in Berlin (Neugebauer, *Führer I, Bronzen* 46, Fr. 1870a) and one in the Bibliothèque Nationale (Babelon and Blanchet, *Catalogue des bronzes antiques de la Bibliothèque Nationale* 17, no. 36), the series of gold earrings assembled by Zahn in *Galerie Bachstitz II* (1921) 27, especially the pair from the Gans collection now in the Metropolitan Museum (acc. nos. 37. 11. 9-10), the mirror cover in London (Walters, *Catalogue of Bronzes* no. 726), an Etruscan gilt-bronze relief in Berlin (*AA* 1904 col. 28, fig. 27), the relief in the Louvre from the Incantada in Salonica (*Mon Piot* 31 [1930] pl. 7), and some reliefs on vases. The reliefs show more variations than the bronze feet and the earrings. Gems also belong to the series, though they too show numerous variations. With this series as a guide, Sichtermann tries to determine first the mistakes made by the restorer of the Vatican group and next the additions introduced by its sculptor. He finds that the eagle's head is wrongly restored; it should be set at a right angle to the neck and the beak should not be open. Ganymede's left arm should perhaps be restored in

such a way that he touches the eagle; however, we cannot be certain that the copyist would not have given him something like the present empty rhetorical gesture or even have put an attribute in his hand. The wings of the eagle should be vertical, not horizontal. The dog, the syrinx, and the tree were added by the copyist. The Phrygian cap was not worn by Leochares' Ganymede. When the mistakes of the restorer are corrected and the additions of the copyist are thought away, we find that the Vatican group belongs to the series. Sichtermann finds it impossible to reconstruct completely the Ganymede of Leochares from this series with its many variations. Among the most difficult problems are the exact pose of the heads of the figures and the form of the support. He tentatively suggests for the latter a pillar or other support of marble.

He agrees with Miss Richter that it is in the Berlin mirror relief (Züchner, *Griechische Klappspiegel*, pl. 7) that we can recognize Pliny's "eagle that feels what it is carrying off in Ganymede and to whom it is bringing him" and believes that, different in composition though it is, it was inspired by Leochares' work. Not all will accept this solution nor his further theory that Leochares was inspired by Plato and that the Ganymede was meant to symbolize *Ἔρως οὐράνιος*.

The body of the dissertation is preceded by a chapter on the pre-Homeric and the Homeric Ganymede. The author suggests that he was a pre-Homeric Greek hero and that the myth of his abduction was originally connected with the vegetation cycle. Both the abduction and the motive for it—his beauty—were probably a part of the pre-Homeric legend. Though the erotic connection between these two motives is not mentioned by Homer, Sichtermann seems inclined to believe that it was already known to the poet and his contemporaries. He argues that beauty alone is not a sufficient motive for the high indemnity paid by Zeus, especially since masculine beauty is not very highly rated in Homer; that the abduction to Olympus is hardly justified by the Iliad's account, since Ganymede is not said to have died and, besides, dead heroes do not go to Olympus; that the inclination to *ἔρως παιδικός* belonged not merely to the Dorians but to the aristocracy as a whole and that a complete absence of it in any one stock would be strange; that in this realm of feeling there is everywhere perceivable a line of development from the coarse and clear to the spiritualized and reserved, as evidenced by the rock inscriptions of Thera, the graffito on a subgeometric cup from Hyettus, and black-figured vase-paintings; and, finally, that Ganymede's office as cupbearer is already mentioned in the Iliad and that such an office later frequently had erotic connections.

These pages are the weakest in the book. The author seems unaware of a possible contradiction between claiming Ganymede as originally a Greek hero and making him originally a vegetation god on the evidence of the abduction myth. Of the three examples he cites for "similar legends," Apollo's sojourn among the Hyperboreans should have been omitted, for the origin of the legend is uncertain and Apollo's connections with vegetation are secondary (cf. Nilsson, *Geschichte*

der griechischen Religion I, 499ff., 517f.). Dionysos, whose "disappearance over the sea" is cited, is, of course, not Greek; in the cult, at least, we should speak rather of an arrival by sea, and it is probably this with which the myth of the pirates is to be connected (cf. Nilsson, *op.cit.* 550). The myth of the abduction of Kore, his third example, belongs, as Nilsson has shown (*op.cit.* 445), to the pre-Greek Persephone. One wonders why Sichtermann does not mention the relief on the tomb of Hyakinthos at Amyclae, which showed Hyakinthos and his sister Polyboia being brought to heaven by Demeter, Kore, Plouton, the Moirai, the Horai, Aphrodite, Athena, and Artemis. This proves that it was possible for the Greek worshippers of a pre-Greek vegetation god who had sunk to the rank of a hero to express their lingering remembrance of his former divinity (cf. Nilsson, *The Minoan-Mycenaean Religion and its Survival in Greek Religion*,² 556) by introducing him into heaven or Olympus. (Sichtermann, by the way, is wrong in making such a hard and fast distinction [p. 54 and note 245] between heaven and Olympus; see Nilsson, *Geschichte der griechischen Religion* I, 330, 367-8.) Whether or not Hyakinthos remained forever in heaven we are not told, nor is Ganymede's permanent abode on Olympus clearly indicated before the Hymn to Aphrodite, for the line containing the words *ἵν' ἀθανάτοισι μετέη* (*Iliad*, 20, 235), which might perhaps be made to bear this meaning, recurs in *Od.* 15, 251 and may have been inserted in the *Iliad* passage later (see Leaf, *ad loc.*). To sum up, we cannot say it is impossible that Ganymede was originally a figure like Hyakinthos, but the abduction myth is not by itself enough to establish even a probability. The only other evidence Sichtermann offers is the occasional appearance of vegetable elements in Roman representations of him. Such elements, however, are frequently meaningless in Roman art, as Rumpf has noted (*Critica d'arte* 4 [1939] 25). The name Ganymede is, in any case, not necessarily a proof of Greek origin; cf. Ploutos, Erichthonios, and the Cretan Zeus in Nilsson's chapter "The Divine Child" in *The Minoan-Mycenaean Religion*,² 533ff.

Sichtermann's arguments for a concealed erotic motive in the Homeric story are not convincing. An indemnity paid for Ganymede would of course be high, for he was a king's son. Male beauty is not at such a discount in Homer; cf. e.g. *Iliad*, 3, 166-70 (not to mention the phrase *μετ' ἀμύμονα Πηλεΐωνα* *Iliad*, 2, 674). Coarseness is a matter not merely of date but also of the individual writer and the literary—or non-literary—genre; for sixth and fifth century Attic graffiti of the type of the Hymettus one see *Hesperia* 22 (1953) 215ff., and for a just estimate of the rock inscriptions of Thera see Rumpf, *Gnomon* 14 (1938) 451f. Clarity, on the other hand, is a characteristic of the Homeric epics, and the reserve here imputed to the poet by Sichtermann seems to me excessive.

For the frequent erotic connections of the office of cupbearer Sichtermann refers to Jaeger, *Paideia* II, 247, and to Malten, *Hermes* 43 (1918) 165. Nothing

in either work, however, indicates that there was a specific and regular association between the two notions cupbearer and *paidika* in the archaic age or even as late as the fifth century B.C. The story told by Ion of Chios about Sophocles (Athenaeus XIII, 603 e-604 d) is the earliest instance mentioned by Malten (and by Kroll in *RE* XI, col. 898) of advances made by a banqueter to a cupbearer; the boy in question appears unused to them. The next example I recall is the uncivilized Cyclops in Euripides' satyr play (*Cyclops*, 556-589). Sichtermann is able to cite only one instance in art, the kylix of about 500 B.C. by the Hegesiboulos Painter in the Metropolitan Museum (Beazley, *ARV*, 77). No such constant association of ideas appears in the passage on cupbearers in Athenaeus X 424 eff. Only one of the cupbearers here mentioned (a woman) seems to have served in a double capacity—Kleino, not only cupbearer but apparently also mistress of Ptolemy Philadelphus (cf. Athenaeus XIII, 576f.).

Athenaeus begins with the statement, "Among the ancients, boys of the noblest birth served as cupbearers," and cites as proof the son of Menelaos (*Od.* 15, 141), the poet Euripides (who as a boy served as cupbearer to the Orchestai), and Sappho's brother, about whom he remarks, "Sappho . . . in many passages praises her brother Larichos as being cupbearer to the Mytilenaeans in the Prytaneion." This custom of using noble youths as cupbearers and the example of Sappho's brother are cited in the scholia on *Iliad*, 20, 234 in explanation of the story of Ganymede—perhaps rightly. For the lines on Ganymede as cupbearer occur in a speech of Aeneas, and this whole episode of Aeneas in the twentieth book is thought to be later than the Aeolic colonization of the coast of Asia Minor, because of the acquaintance it shows with a native dynasty ruling in the Troad that claimed to be, or was said by the Greeks to be, descended from Aeneas (lines 307-8; see Leaf's introduction to book XX in his edition of the *Iliad*; Wilamowitz, *Die Ilias und Homer*, 80ff.; Lorimer, *Homer and the Monuments*, 488). The poet of the Aeneas episode, therefore, may have made the gods and Trojans behave like his Aeolian contemporaries. The gods choose a high-born youth as cupbearer to Zeus, in whose palace their feasts are held, and the youth's family consider the choice an honor.

The only other mention of Ganymede in Homer, *Iliad* 5, 265ff., may on this hypothesis refer to a different story from that told in *Iliad*, 20. It again is set in an Aeneas episode. The next occurrence in extant literature is in the hymn to Aphrodite, the poem that gives the birth-story of Aeneas. As Wilamowitz saw (*op.cit.* 83), the Ganymede story is part of the Aeneas legend. Now there is another oddity in the Aeneas legend, a goddess of the first rank who has a love affair with a mortal. The plausible suggestion has been made that Aphrodite here stands for another Asiatic goddess, the Great Mother of Ida. We cannot, therefore, dismiss as lightly as Sichtermann does the possibility that Ganymede is also Asiatic. Miss von Scheliha (*Patroklos*, 308) has acutely suggested that Ganymede, Anchises, and other Asia Minor myths, such as Paris and the goddesses, Tantalos, Eos and Tithonos,

and Apollo and Poseidon's employment by Laomedon, may go back to a period when the gods were still imagined as roaming the earth.

There are thus a number of possible explanations of the Ganymede story. To assume that, if every detail of the Homeric myth cannot be fully explained by Ganymede's beauty, the only other possible motivation is the erotic one is wrong.

Appended to the text of the book is a list of 421 representations of Ganymede in ancient art. To these may be added the following, of which those not in the Metropolitan Museum were brought to my attention by Mr. Dietrich von Bothmer: bf stand in the Classical Collection of the University of Chicago: Ganymede fleeing (*AJA* 47 [1943] 399, fig. 16; subject identified by Mr. von Bothmer); rf chous in the possession of Dr. Herbert Cahn in Basle, mentioned by Beazley in *Paralipomena*, p. 2074, and there attributed to the Tarquinia Painter as no. 23 ter: Zeus and Ganymede (names inscribed); rf Nolan amphora, acc. no. GR 594, in the Metropolitan Museum: A, Zeus pursuing, B, Ganymede fleeing (H. McClees and C. Alexander, *The Daily Life of the Greeks and Romans as Illustrated in the Collections of the Metropolitan Museum of Art* [1941] p. 48, fig. 59); two terracotta relief plaques from Canosa vases, acc. nos. 48.344 and 48.345, in the Walters Art Gallery, Baltimore: Ganymede hanging by right arm from neck of eagle (*Flight: Fantasy, Faith, Fact, A Loan Exhibition . . . Cosponsored by the Dayton Chamber of Commerce and the Dayton Art Institute, Dec. 17, 1953-Feb. 21, 1954*, p. 7, nos. 40A, 40B, pl. III); ivory relief plaque, Roman period, acc. no. 71.596, in the Walters Art Gallery, Baltimore: Ganymede and the eagle (*op.cit.*, p. 6, no. 39); Roman couch, acc. no. 17.190.2076, in the Metropolitan Museum, with ivory reliefs on legs showing Ganymede and the eagle with other figures, human and animal (G. M. A. Richter, *Ancient Furniture*, fig. 313 opp. p. 132; now restored as a couch); bronze statuette (in 1879 in the Trau collection in Vienna), acquired in Augsburg in 1869 as part of a lot of small bronze figures and heads of animals from utensils: eagle with Ganymede on rectangular base, ht. 0.055 (*AEM* 3 [1879] 188, no. 112; apparently Roman provincial work, perhaps something like Sichtermann's no. 110). On the individual items in Sichtermann's list the following corrections and additions may be made. No. 19: now in the Metropolitan Museum; published by Miss Pease in *CVA*, U. S. A., fasc. 8, pl. 45, 1. The man with the helmet is Ares. No. 30: for Bowdain read Bowdoin. Nos. 111-12: for GBachst. 25 read GBachst. II 25 (wherever in Sichtermann's list and notes a reference to GBachst. occurs, the Roman numeral II must be inserted); add here the references *BMA* 32 (1937) 291ff., figs. 2 and 4, and C. Alexander, *Greek and Etruscan Jewelry, A Picture Book* (New York, 1941), fig. 3, No. 264: from the collection of Count Nugent? Cf. *AEM* 5 (1881) 160 (a reference I owe to Mr. von Bothmer). No. 369: a hunter; add the references Zahn, *BerlMus* 55 (1934) 4ff., fig. 6, and Beazley, *Etruscan Vase-Painting* (Oxford, 1947) 209, no. 3. No. 371: the fleeing youth is Paris, as Beaz-

ley has remarked. Nos. 397 and 398: these heads from the Gréau collection were sold in Paris at the Hôtel Drouot, May 11-16, 1891, and did not, to the best of my knowledge, come to New York.

A few observations and corrections may also be added on the text and notes of the book. P. 16, third paragraph: the graffito on the subgeometric cup from Hymettus is referred to as "inscriptions on geometric sherds"; for the date see Rodney Young, *Hesperia*, Supplement II (1939) 227. For courting scenes later than 525 B.C. see Beazley, *Some Attic Vases in the Cyprus Museum* 14-31. P. 20: "in Euripides . . . nothing is said directly about (Ganymede as) the cupbearer of Zeus." See, however, *Troades*, 820ff. p. 21: "The oldest representations (of Ganymede) we have are on black-figured vases." Two of the black-figured vases mentioned, however, the lekythos in New York by the Sappho painter and the alabastron in Berlin by the Diosphos painter, are not as old as the red-figured kylix in Corneto by Oltos. P. 27, last three lines: Sichtermann argues that the cup by Douris, Beazley, *ARV*, 286, 83, hardly represents the abduction of a boy, and besides "it could never be Ganymede, as sleep is not appropriate to him." It is possible, however, that a form of the Ganymede myth with which we are not familiar is represented here; cf. Rohde, *Kleine Schriften* II (Tübingen and Leipzig, 1901) 199, note 1. P. 28, line 1: for oder read und. Pp. 28ff. and no. 81, p. 79: the terracotta group in Olympia. A photograph taken after the head of Ganymede and the left leg and right foot of Zeus had been attached is published by Mr. Vanderpool in *AJA* 57 (1953) pl. 81. The group, it is reported, is now taken to be not an akroterion but an independent offering; see Vanderpool, *op.cit.*, p. 284, and H. Gallet de Santerre, *BCH* 77 (1953) 216. I owe the information and the references to Mr. von Bothmer. Sichtermann quotes K. Scherling in *RE Suppl.* VII, col. 851, for the statement that Pindar, using the Ganymede myth as a model, invented Poseidon's abduction of Pelops. Scherling, however, makes it clear that he is here summarizing Wilamowitz, *Kleine Schriften* I, 184 and *Pindaros*, 234ff. Wilamowitz's argument—and it is a convincing one—is that the way Pindar introduces the story shows that it is his invention. Pindar's innovation did not prevail. Therefore we cannot accept Mingazzini's interpretation of the Olympia terracotta group as Poseidon and Pelops and we should hesitate to accept Sichtermann's similar interpretation (in his note 110, p. 105) of the Nolan amphora in the manner of the Achilles painter in Cracow (Beazley, *ARV*, 646, 6). P. 34 and note 122 on p. 106: the tone of Beazley's comment on the Oxford Ganymede has escaped Sichtermann. P. 37: the argument that the eagle and the swan were introduced into the Ganymede myth not by writers but by artists, since there was no literary or mythological reason to introduce them, is weak. One of the reasons for the modification of myths is the pleasure of poets in inventing new forms of them. One way of inventing such forms is to borrow motives from other myths. The motive of the swan already existed in the Hyakinthos myth and that of the eagle perhaps in the

Thalia myth; at least, our earliest such representation of Thalia is certainly somewhat earlier than the Berlin mirror with Ganymede and the eagle. Pp. 65-6: on the general question of symbolism on sarcophagi see A. D. Nock, *AJA* 50 (1946) 140ff. P. 101, note 39: Sichtermann seems to have misunderstood Beazley here. P. 102, note 55: for Γανυμή(δες) read Γανυμή[δες]. P. 103, note 71, line 8: for Anm. 98. 99 read Anm. 93. 94; in line 10 for 53 read 110. P. 103, note 77, line 5: for Kephalos read Tithonos. P. 104, note 79: the pomegranate may be Hera's; cf. Pausanias II. 17. 4. P. 118, note 287, line 2: for 183 read 83. P. 121, note 318, line 9: in the Nilsson reference for 13 read 23.

While I was reading the proof of this review, a copy of part two, just published, of Caskey and Beazley, *Attic Vase Paintings in the Museum of Fine Arts, Boston*, came into my hands. On pp. 52-53, Beazley discusses the representations of Ganymede on vases and makes a number of additions to the list of them. In his *Paralipomena*, pp. 2032-2033, 2090-2091, and 2246-2248, he adds further the fragments of a rf cup in his possession in Oxford and that of Signor Mario Astarita in Naples, attributing it to Douris as no. 41 bis: A, Deities on Olympus, with Ganymede as cup-bearer; B, Achilles and Hector; I, Hermes. I owe this information to Mr. von Bothmer. Only recently, a Roman lamp with nine nozzles and a high handle was given to the Metropolitan Museum by Mr. and Mrs. Harry G. Friedman: on the top, Ganymede carried off by the eagle; on the bottom, the wolf with Romulus and Remus, and, around it, the inscription VA MF. Its accession number is 54.159.

MARJORIE J. MILNE

THE METROPOLITAN MUSEUM OF ART

EXCAVATIONS IN AZARBAIJAN, 1948, by T. Burton Brown. Pp. xiv + 279, pls. 17. John Murray, London, 1951. £4 4s.

It is hardly possible to dispute that an area of civilization in the ancient world can only be understood with reference to the surrounding lands, the friendly or hostile influences of which frequently explain the inner workings of the area as reactions to external causes. The history of Mesopotamia is especially characterized by waves of successive ethnic influences from its earliest times. During the last thirty years great steps have been made in our understanding of the influences of the lands to the east, especially the people of the mountainous zones. The early relations with the west, on a firmer basis for a long time, have been clarified by the intensive study of the Amorites, the Hurrians, and the Hittites, and through the excavation of a number of sites of which Mari, Tell el 'At-shaneh, Ras Shamra, and Mersin are only a few. Indeed, it is difficult to single out the landmarks in the wealth of archaeological and inscriptional material now at our disposal.

The one area where the ground has remained virtually unbroken, from the geographical standpoint of

Mesopotamia, is the north, although a partial exception may be made in the case of the region of Lake Van. Not the least of the reasons for our lack of knowledge of the area is its division at present among three powers, as exemplified by the respective location of the lakes of Van, Rezaïyyeh (Urmieh), and Sevan in Turkey, Iran, and the U.S.S.R. We are made all the more aware that this division is to the detriment of archaeology under present policy, since our studies seem to indicate that the solution of several problems of the early history of Western Asia may lie there. T. Burton Brown's report on his excavation at Geoy Tepe on the western shore of Lake Rezaïyyeh is therefore of great interest. The aim of the excavation was to secure a knowledge of the area's early history and prehistory by a stratigraphic sounding and thereby to ascertain in part its rôle in relation to its neighbors, Eastern Anatolia, Cilicia, Northwest Iran, Mesopotamia, the Caucasus, and possibly the Aegean. The accomplishment of this aim is something of a *tour de force* in that the excavator conducted his field work and recording single-handed with the aid of a member of the Museum of Antiquities at Tehran. In the preparation of the volume, however, he has been fortunate in securing all available assistance, notably on the special reports on metal, beads, and human crania. Prior to his work, the only material known from the area derived from chance finds, protracted but limited commercial digging, and a few days' excavation at Hasanlu by Sir Aurel Stein.

The sequence established by Burton Brown is based on the excavation of limited areas and must therefore be treated with all due caution. The following successive periods, beginning with the earliest, were determined; the first five strata fall within the Bronze Age. *Period N*, the earliest, is represented only by a few fragments of well polished red ware and a well fired but rough gray ware. *Period M* has affinities with Lake Van and is characterized by one type of pottery with matt brown paint designs on a frequently slipped buff ware, the decoration consisting of horizontal lines of little loops, hatched triangles, and oval blots. The affinities of *Period K* are confined to a small area including Van and Trialeti, Georgia, although the excavator also suggests connections with Cyprus. Stone walls were found, presumably as foundations for brick walls, and traces of woven rush matting. Of interest for dating was a "raquet pin" of copper, which was found on analysis to have an appreciable arsenic content. The period is chiefly characterized, however, by a remarkable, handmade, highly polished black ware with ornament modelled in relief or with circular depressions and impressed thick lines. *Period G* is characterized by a plain buff ware with combed-incised lines and ornamental ribs, a ware suggesting affinities with Early Dynastic Mesopotamia. *Period D* strata revealed traces of a fortified town and showed diverse relations, predominantly Iranian, characterized by several varieties of pottery. The pottery included red polished and red washed ware, gray polished ware, plain buff ware, monochrome painted ware, and at least two types of polychrome painted ware. *Period C*

has possible Aegean affinities and is characterized by two wares, one polychrome with red and black matt paints, the decoration including birds and animals, the second a fine, polished buff with lustrous red and black paints. *Period B* has affinities with Tepe Giyan I, the Tepe Sialk "A" Cemetery, and is characterized by plain wares, one a polished, dark ware and one a smoothed, pale buff ware. *Period A* has strong affinities with Trialeti and Caucasus sites and possibly connections with the Aegean. The wares are plain with incised and fluted ornament.

A number of stone-built tombs and graves were found, the former assigned tentatively to Period D. Two interesting stone sculptures of sheep and one of a lion, slightly over life size, were found on the surface. Several slabs with hieroglyphs, similar to four inscribed on one of the sheep, were found and assigned by the excavator to the last period well represented, Period A, as were the sculptures.

In a section entitled "Outline of the History of the Bronze Age in the Near East, considered from the international point of view" and in the sections devoted to foreign parallels under each period the author makes substantial contributions, but the wealth of comparisons and parallels noted, ranging from Egypt to Pakistan, tends to distract rather than to focus the reader's attention. Some of the references are only barely relevant, and some of the generalizations are clearly out of place in an excavation report. As an exponent of the diffusionist theory to an extreme degree, the author tends to blur distinctions between pottery wares, for example, the wares of his Period M and the el Ubaid ware of Mesopotamia. This mild criticism is not intended to detract from the volume's usefulness.

In general, the material presented indicates that the area does not follow the main lines of Mesopotamian, Iranian, Anatolian, or Caucasian archaeological sequences, but that it has close relations with one or more of these areas at different times. The reviewer does not feel competent to judge the validity of the Aegean parallels cited, but would like to express some doubt in this connection. We should very much like to know more of the area and to be able to determine the approximate date and duration of the periods already isolated. Until further excavation is undertaken T. Burton Brown's report on Geoy Tepe will remain the most reliable introduction to the sequence which it established.

WILLIAM KELLY SIMPSON

THE METROPOLITAN MUSEUM OF ART

KUSH, JOURNAL OF THE SUDAN ANTIQUITIES SERVICE, 1953-. To be published annually. Price: 50 P.T. or 10 shillings.

Since the *American Journal of Archaeology* suspended the section on Archaeological Bibliography of Current Periodical Literature, the last installment of which appeared in *AJA* 56 (1952) 69-82, it has been

the practice to bring new periodicals to the attention of our readers in this section. Cf. *AJA* 57 (1953) 287-288. American institutions and archaeologists have played an important rôle in the archaeology of Nubia and the Sudan, and we are therefore especially pleased to welcome *Kush* I (1953), the first number of the journal of the Sudan Antiquities Service, edited by Mr. Peter L. Shinnie. The significance of the region is summarized by the editor in his introduction: "The Sudan, by its intermediate position between the Near East and central Africa, has a peculiarly important position in archaeology as a link between areas of known and unknown chronology. It has served at many different periods of history as a point of contact between north and south through the Nile valley, and, by its position on what is now the pilgrim route from West Africa, it has become a meeting place of east and west African peoples."

The articles included in the first issue range from palaeolithic to present times: "Field Archaeology of the Middle Nile Region" by O. G. S. Crawford; "The Late Acheulean of Shaheinab" by A. J. Arkell; "Rock Drawings in the South Libyan Desert" by W. B. K. Shaw; "Excavation of a Mound Grave near Ushara" by K. Marshall and Abd er Rahman Adam; "Deux acquisitions récentes du Musée de Khartoum" (a ceremonial brick stamp of Shabaka found at Amentago and a bronze statuette of a king of the same dynasty) by J. Leclant; "Two Statues at Naqa" (author suggests the date as period of Netekamani, 15 B.C.-A.D. 15) by P. L. Shinnie; "Early Days, 1903-1931" by J. W. Crowfoot and F. Addison; "The Red Sea Style" (in extant architecture) by D. H. Matthews; and notes on the discovery of two sites, Umm Ruweim and Abu Erteila, by the editor.

The periodical sets a high standard for printing and illustration in its first issue, and it can be obtained from the Commissioner for Archaeology, P.O. Box 178, Khartoum. Contributions are welcomed and may be sent to the editor at the same address.

WILLIAM KELLY SIMPSON

THE METROPOLITAN MUSEUM OF ART

SOVETSKAIA ARKHEOLOGIJA, VOL. 17, 1953, edited by B. A. Rybakov. Pp. 378, figs. 104. The Institute for the History of Material Culture, Moscow, 1953. 20 Rubles 50 Kopeks.

This yearbook includes a series of articles dealing with a wide range of archeological subjects. The lead article is by the editor who attempts to analyse the first stages of the formation of Kievan Russia. He examines variations of regional names in the twelfth through the fourteenth century annals and compares archaisms in these forms with the geographical limits of known archeological cultures. He defines a "Russian territory in the broad sense" as the limit of the Kiev state in the eleventh century. The Dnieper region is the "Russian territory in the narrow sense" at an earlier time. The narrow area is asserted to be an

archeological unity in the sixth and seventh centuries. On this basis the possible tribal groups inhabiting the region and their connection with the local variety of the earlier "field burial" culture is discussed. A line of development is traced from the fourth-century tribe which the author asserts inhabited the vicinity of the Ros river to a tribal alliance formed under this name in the sixth and seventh centuries. The earlier tribe is viewed as a part of the Ante tribal alliance mentioned by Byzantine authors. The extension of the culture in the seventh and eighth centuries leads to the emergence of a Rūs nationality as reflected in the later chronicles. This autochthonous explanation of the origin of Kievan Russia is a provocative contribution to a heated controversy. Some of the illustrated material is published for the first time.

Kh. A. Moora summarizes the archeological history of the Baltic countries up to the end of the twelfth century. Analysing the rather limited finds, he attempts to deduce the stages of social development in the region. Much of the material introduced is republished, though from generally hard-to-come-by sources. New data from several excavations and field surveys of recent years is included.

K. A. Smirnov in a bibliographical article traces the sixty years of study of the Sarmatian problem. Current work on village and burial sites is listed and references to forthcoming publications included.

A survey discussion of upper Paleolithic chronology at Kostenok in the Ukraine is contributed by A. N. Rogachev. He discusses the four-layer stratification of the Telmanskaia site and compares it with the stratification of Kostenok I, IV and Avdeev, criticizing Efimenko's six-stage, typologically derived, chronology of the upper Paleolithic in this region.

Supplementing his 1948 article in another journal generally unavailable here, V. D. Blavatskii reviews the 1949 excavations at Panticapaeum with regard to architecture and town planning. Panticapaeum, he states, was a Milesian foundation of the first half of the sixth century, but newly uncovered evidence may indicate that it existed as early as the seventh century as a Cimmerian site. This evidence is briefly described as an old wall of Cimmerian type under a fifth-century foundation. The limits of the town at various periods were studied by tracing the many city walls. The town is on a hillside with six terraces supported by retaining walls. The earliest of these is dated in the fourth century. Sixth-century houses were found along with the remains of an early fifth-century wall. House types from the sixth century through the third century A.D. are briefly mentioned. Orientation is for the most part without regard to the retaining walls. The author states that this plan is typical of non-Greek sites at Kimmerika and Tiritaki. Other finds discussed include an Ionic temple discovered in 1945. The plan and elevation have not been precisely determined, but a tentative reconstruction is essayed. A burial chamber of the first century A.D., excavated in 1948, is illustrated. It is of a relatively unornamented type. Some interesting inscriptions have come to light, one of which mentions Pharnaces, the first with his name found at

the site. Another mentions Aspurgis the ruler of the Bosporan kingdom, dated A.D. 23. Both are reproduced in the text.

A hoard of silver bowls found in 1941 in the Bashkir region of the Urals is published for the first time by A. I. Voshchina. The bowls are dated in the sixth or seventh centuries A.D. One shows an eagle seizing a lamb, the other a royal hunting scene and the third is merely a fragment. They are of Iranian origin, illustrating the connection between the Ural region and Iran in this period.

V. V. Dzharparidze publishes a short outline of Georgian pottery of the eleventh to the thirteenth centuries A.D. The material is divided into two classes, painted and faience. The latter is largely imported. The first is more numerous and has several sub-varieties. Dating rests on finds in the Dmanisi, Gudarekhi and Tbilisi digs where representative pots were found containing coin hoards bracketing the period.

Another article on the "horse burial" question is contributed by R. K. Kulikauskene, who deals with the Lithuanian types from the second century B.C. through the twelfth century A.D. Grave inventories are illustrated and changes in the character of the burials with time are discussed.

Continuing his series on Kiev architecture of the eleventh and twelfth centuries, M. K. Karger discusses the church of the Saviour in the Birchwood (Spasa Berestovo). He contests the theory held by many writers that it was built in the early eleventh century by Vladimir Monomach. He discusses what he believes to be the errors in the old Polish chronicle which gave rise to this general impression. The original plan of the building is reconstructed from the excavations of 1914 and 1923 and from comparisons with other buildings. A date is inferred around the turn of the eleventh/twelfth centuries. If this is correct, the frescoes found in 1863 and believed to be among the oldest in Kiev are moved up half a century or more.

The yearbook concludes with useful summaries of the results of field work in 1951 and a list of all archeological literature published in 1950. The quality of the reproductions shows no improvement over the previous volume.

IRWIN SCOLLAR

BRUSSELS

RECUEIL DES SIGNATURES DE SCULPTEURS GRECS. By Jean Marcadé. Première Livraison. Paris: Librairie E. de Boccard, 1953.

Marcadé in the last decade or so has published in *BCH* several articles on Greek Sculpture which have won him recognition as a judicious and acute investigator. With the assistance of the Académie des Inscriptions et Belles-Lettres, he began in 1950 preparation of a *Recueil* which is intended ultimately to replace Loewy's *Inscripfen griechischer Bildhauer*, printed in 1885. This new work takes up sixty-two sculptors, of

whom thirty are known from literary sources, and five are completely new. Over half are from the fifth and fourth centuries. There are twelve hitherto unedited inscriptions, all from Delphi.

A comparison of the methods of presentation of Loewy and Marcadé may be instructive. Loewy grouped the inscriptions chronologically and then subdivided them geographically; Marcadé in this first fascicle lists in alphabetical order all artists whose activity is attested by epigraphy for Delphi. Loewy presented each inscription in reduced facsimile; Marcadé, availing himself of modern photographic techniques, has illustrated each extant inscription with a photograph either of the stone itself or of a squeeze, and he frequently offers photographs or drawings of the cuttings. Loewy took pains to lay before the reader very complete data about the artists and the inscriptions; Marcadé presents the salient facts with a minimum of discussion and bibliography.

Physically, instead of being a bound book this is a loose-leaf album in which each artist occupies a separate page (or pages) headed with his name. In essence, this work is a catalogue designed for the purpose of flexibility in making future additions and replacements without the necessity of republishing the whole. Such a method, along with its obvious advantages, would seem to present some problems. Since most sculptors worked in a number of cities, one might imagine there would be difficulties in coordinating future fascicles with this one. To examine one instance, five bases of statues are preserved containing the name of the sculptor Kresilas from Kydonia, Crete. Since one of these bases is from Delphi, Kresilas is listed in the present fascicle, although he did in fact work primarily elsewhere. When the Athenian fascicle appears, Kresilas, who is generally ranked as an Athenian sculptor, will presumably appear only as a cross-reference.

The work seems to be very conscientiously done. There are only minor corrections and queries. On sheet I, 1, circular brackets should be substituted for square at the end of line 1, since there is no restoration, strictly speaking. On sheet I, 9, there are no interpunctuation marks after the first word of the fourth line. In I, 90, the rho which Marcadé states is legible is certainly not clear on the photograph he gives; I question that the name of the artist is Pyrrhos. In the alphabetical list at the front, Mene- and Menodotos do not appear, although each is given a sheet; Somis, on the other hand, is listed, though he is not attested by epigraphy at Delphi. In all other localities than Athens, the color of the marble is stated; it would have been desirable to have some uniformity of description rather than rely on such terms as "Hymettian" and "Pentelic," which are geologically inaccurate.

The author and publishers are to be congratulated on the comely appearance of the fascicle. All details are carried out on a luxurious scale. The quality of the illustrations, the general layout of the pages, and the excellence of the French and Greek types, all add greatly to the value and usefulness of such a publication. This manual of illustrated bases is of obvious importance to the epigraphist; it is even more so for the

student of sculpture, who now has before him an orderly and well-documented record of the epigraphical material.

W. KENDRICK PRITCHETT

UNIVERSITY OF CALIFORNIA

MUSEO NAZIONALE ROMANO: SCULTURE GRECHE DEL V SECOLO, ORIGINALI E REPLICHE, by *Enrico Paribeni*. Pp. 79, pls. with 125 figs. La Libreria dello Stato, Roma, 1953. L. 2500.

This volume is the first in a new series of scientific catalogues of Italy's Museums and Galleries, sponsored by the Italian Ministry of Public Instruction. It is a much needed undertaking, for though there have been some excellent catalogues in the past, most of them are now out of date.

We may say at once that Enrico Paribeni's contribution sets a high standard for the project and augurs well for the future. A particular attraction of the book is that it deals with a homogeneous group of fifth-century sculptures found chiefly in and near Rome. They include such masterpieces as the Ludovisi Throne, the Lancellotti Diskobolos, and the Niobid from the Gardens of Sallust, as well as many a modest torso or battered head that had hitherto led an undisturbed existence in some *magazzino*. All are carefully placed in chronological sequence, discussed, evaluated, and provided with a selected bibliography. In the well-known pieces the various theories regarding them are stated, followed by a personal estimate which shows the author's wide knowledge, sensitive feeling, and keen observation. (One misses perhaps a detailed description, since mostly only one illustration of each figure is given.) What will make the book indispensable are the lists of replicas that Mr. Paribeni has given for the sculptures discussed. He has not been content with citing a few well-known statues, but has in each case supplied as complete a list as possible; and many examples he has himself discovered. Thus he is able to add ten to Anti's list of copies of the Westmacott youth, he can list more than fifteen copies of the Polyclitan Pan, 18 of the Polyclitan Herakles, 24 "Aspasias," 16 copies of the Jacobsen Hera, 15 of the Athena Giustiniani, and so on. (The illustration for the Jacobsen Hera, no. 111, has been inadvertently interchanged with that of the Athena from the Tiber, no. 94.)

It is not possible in a short review to discuss in detail the rich material here made available. I must confine myself to a few comments on pieces about which I have something specific to say.

As the great majority of the sculptures in this catalogue are copies of the Roman period, they afford a good opportunity of evaluating them. They comprise direct copies, of which there are sometimes several of the same type in the Museum, and free copies. In the direct, mechanical copies, such as the Ludovisi Hermes (no. 28) and its somewhat reduced replica from Anzio (no. 29), there are modifications in such de-

tails as the shape of the petasos and the direction of the kerykeion, but the allover composition is the same. This applies also, of course, to the replicas of the Westmacott youth (nos. 47-49), of the Doryphoros (nos. 50-52), etc., and to the three identical double herms with idealized heads (nos. 64-66). By way of contrast, the free copies, for instance those of the Nike parapet and the Athena Parthenos (nos. 122, 103), present fundamental differences, for the obvious reason that no casts were available for mechanical reproduction.

An instructive case is presented by the Lancelotti and Castelporziano Diskoboloi (nos. 20, 21), now placed in the same gallery, though not side by side. In spite of a variation in the direction of the trunk (the extent of which is difficult to determine unless the two statues were mounted in exactly the same manner and photographed from exactly the same angle), the allover design is essentially the same. This complicated pose could, indeed, not have been reproduced so faithfully in the various full-size replicas except by mechanical means. The Lancelotti Diskobolos, in fact, retains a little perforated mound on the top of the head used during the pointing process; (the second little projection, unperforated and not visible in the illustration, is probably an unfinished curl).

Paribeni cites seven replicas of the Abbondanza youth, no. 40, of which two heads—that from Annecy and that in Copenhagen—are evidently female. Is this not a case like that of the Anzio Apollo and the Burtinto girl in which practically the same type of head was used in two different sculptures? It was evidently not the copyist, but the Greek fourth-century sculptor, who made the variations.

The valuable series of peplophoroi (nos. 79, 82-89) and of bearded heads (nos. 57-71) gives Paribeni the opportunity of distinguishing the various types—a difficult task which he performs with great acumen, adding much that is new and valuable. The kore no. 76 he interprets, I think rightly, as a Roman work, not an archaistic adaptation, but one of the few extant direct copies of an archaic Greek original.

In discussing a head of the type of the Borghese Ares, no. 74, Paribeni gives a list of fourteen other replicas, including statues, torsos, and heads. He makes the interesting suggestion that since in Roman copies a second figure is often added, the Greek original may also have been grouped with another statue, presumably an Aphrodite. There is here, however, the difficulty that in the Roman copies the female figure is of a fourth-century type, whereas the Ares is of the fifth. The Roman version must, therefore, be an independent, later adaptation.

The figure mentioned in connection with the Aura or Nereid from the Palatine, no. 5, as being in the Béarn Collection has now been presented to the Louvre by the Marquis de Ganay. Is not the Penelope problem (cf. no. 78) clarified by interpreting the type simply as that of a mourning figure used with variations in

different compositions? The knowledge of anatomy shown in the Omphalos Apollo, no. 16, seems to me considerably more advanced than in the Tyrannicides, so that a date near 450 B.C. rather than near 470 appears likely. To discussions of the *Dreifigurenreliefs* such as the Orpheus, no. 120, and the head of Theseus, no. 121, several recent contributions can now be added, viz. Götze, *JDAl* 63-64 (1948-49) 91; Richter in *Festschrift Andreas Rumpf* (1950) 128ff.; H. A. Thompson, *Hesperia* 21 (1952) 62ff.

Paribeni rejects the theory that the central panel of the Ludovisi relief, no. 3, represents the birth of Aphrodite, on the ground that it does not seem joyous enough, unlike in this respect to representations on vases. He inclines, therefore, to connect the scene with Persephone, relating it to Locrian reliefs. But surely there is something joyous in the radiant face of the central figure, and if there is an element of mystery, as Paribeni thinks, the birth of a goddess from the sea would in itself be sufficient reason. In the discussion of this relief one misses a definite opinion regarding the authenticity of the Boston counterpart. One should have expected that so sensitive an eye as the author's could have seen the overwhelming reasons for the genuineness of this piece even from photographs.

Can such statues as the Ariccia goddess, no. 108, be even tentatively attributed to Kresilas, or the Hera Jacobsen, no. 111, to Agorakritos, or the Ludovisi Hermes, no. 28, to Myron? The fragmentary state of our knowledge regarding Greek sculptors is again brought home to us by J. Marcadé's publication of artist's signatures from Delphi (*Recueil des signatures de sculpteurs grecs*, première livraison, 1953). We find here name after name of sculptors known only by signatures on statue bases and yet eminent enough to have executed work in one of Greece's chief sanctuaries.

Two forgeries are placed at the end of the catalogue, one a head copied from the Barberini Suppliant, no. 124, the other a head of Ares, no. 125. The head of Athena with inlaid eyes in the Barracco Museum mentioned in this connection as also of doubtful authenticity seems to me to be in a different class. The expression may be somewhat vacant, it is true, but the firm structure of the head is convincing. There is, moreover, a strongly adhering, hard incrustation that no modern hand could, I think, have produced—not at least as long ago as when the head was acquired by Barone Barracco.

These random remarks may serve to show the manifold interest of Paribeni's volume. We may hope for a continuation by him of the fourth-century and Hellenistic sculptures in which the Terme Museum is so rich and which likewise present interesting problems. (The Greek and Roman portraits in the collection have been treated in a separate volume by Mrs. Felletti Maj.)

GISELA M. A. RICHTER

ROME

MANUEL D'ARCHÉOLOGIE GRECQUE—LA SCULPTURE (TOME IV): PÉRIODE CLASSIQUE—IV SIÈCLE, by Charles Picard. Pp. 421, figs. 177, pls. X, Editions A. & J. Picard & Cie., Paris, 1954. Ff. 2.850.

This welcome new volume of Mr. Picard's *Manuel* continues the account of fourth-century sculpture—begun in a previous volume and to be continued in another. The new installment is devoted almost entirely to the two outstanding sculptors of the second third of the fourth century B.C. It consists of only two chapters, entitled respectively *Skopas et les maîtres de la sculpture monumentale*, and *Praxitèle après le retour d'Asie*. These themes, with their many intricate problems of attribution, chronology, and interpretation, must have had a special appeal for Picard, for they are treated at much greater length than any previous subject in the *Manuel*. Thus the three monuments on which, according to literary tradition, Skopas worked, viz. the Mausoleion at Halikarnassos, the temple of Artemis at Ephesos, and the temple of Athena Alea at Tegea, take up over 200 pages. In fact the *Manuel* has become an *histoire*.

As always, Picard gives a wealth of information, in text and footnotes—which a future index will make conveniently available—and he supplies a multitude of illustrations, some of little-known sculptures, and all with ample captions. It is not too much to say that no other history of Greek sculpture displays such extensive and varied knowledge and gives such exhaustive bibliographies. For every subject treated, the theories held by other archaeologists are cited, so that the *Manuel* becomes a most valuable reference book. Naturally this makes the text seem sometimes cluttered, but there is generally a résumé which gives the essential facts.

The story begins with the Mausoleion and the much discussed attribution of the various slabs found on the site. As Pliny gives the names of the four sculptors who executed the decoration, each on a separate side of the building, this clue has given rise to countless conjectures. The Wolters-Sieveking attribution to Skopas of the three slabs found on the east side is favored by Picard, but for the other slabs, those attributable to Timotheos, Bryaxis, and Leochares, the choice is left open. (Mr. Ashmole's article in the *JHS* of 1951 was evidently not yet available to Picard, for the evidence there advanced is not considered.) The question as to whether the statues found on the site should, like the reliefs, be attributed to the four sculptors mentioned by Pliny is sensibly answered in the negative. To do so would indeed lead one into too many unprofitable surmises, and the word *caelare*, twice used by Pliny for the work of the four artists, seems definitely to exclude sculptures in the round.

In the account of the Ephesian reliefs in the British Museum, the discussion of the best preserved one, perhaps to be associated with Skopas (pl. III, fig. 57), is particularly interesting. Here Picard lists and appraises the many different interpretations that have been suggested, "un bilan des aventures intellectuelles,"

as he calls them. Picard himself favors the story of Iphigeneia at Aulis as the most likely explanation, on the ground that it can be intimately associated with Artemis, the goddess of the temple. In that case, however, the representation would follow no traditional pattern. The scene on the Uffizi altar (fig. 60) seems hardly comparable; for there, as elsewhere, the impending sacrifice is clearly indicated.

Picard's discussion of the sculptures from Tegea is equally informative. In addition to a careful evaluation of the evidence for the chronology and interpretation of the sculptures, a scheme is offered for the composition of the eastern pediment, in strict concordance with Pausanias' description (figs. 75, 76). A head, of Doli-ana marble like the other pedimental figures, is assigned to Atalante (fig. 77), taking the place of the well-known head of Parian marble (pl. VI). The latter, together with a draped torso (fig. 87), becomes a nymph and part of an *autel fédéral*. In the account of the pedimental sculptures the author should, perhaps, have emphasized the important fact that one cannot definitely assign even the design to Skopas. Pausanias only tells us that Skopas was said to be the architect of the temple and that he made the statues of Asklepios and Hygieia standing on either side of the cult image. All else is supposition.

The second half of the book is devoted to Praxiteles and his circle (a very widely drawn circle). Picard here acknowledges his debt to Rizzo's great work, which is constantly quoted and from which some of the illustrations are derived. The question of the Hermes of Olympia—fourth-century original or Roman copy?—rightly looms large, occupying almost fifty pages, i.e. one third of the chapter. I say rightly, for if we do not accept the statue as an original by Praxiteles we lose one of our cornerstones. No longer can we in our imagination imbue Praxiteles' other works that are preserved only in copies with the delicate texture of the Hermes. All standard of comparison is gone.

Picard is, therefore, justified in going into the Hermes question at length and in citing the many arguments for and against that have been advanced in the case (pp. 250ff.). And I, in my turn, may be pardoned for taking up the challenge, especially as Picard has made the "objections" seem so valid and the answers by the defense somewhat unconvincing. In fact, as one reads page after page devoted to the attack, one might almost be converted oneself, except when one turns again to the statue itself, which seems quite unperturbed by it all, remaining as transcendently lovely as before. A visit to the Hermes at Olympia is indeed the best cure for any doubt. The statue can there be compared with excellent Roman copies, draped and undraped, used for portraits of emperors and princesses, and provided with the signatures of their proud makers. The difference between these statues and the Hermes is so palpable that if quality is evidence the question is solved.

Nor is it difficult to meet the specific objections levelled against the Hermes. They consist of the unfinished back, the high polish, the use of certain tools, the strut, the drapery, the base, all of which have been

held to be post-Praxitelean, and so attributable to a copyist. In considering these arguments it is evident that if it could be shown that these features never appear on fourth-century originals, only on Roman copies, the case against the Hermes would be strong—in spite of the fact that few original fourth-century statues have survived for comparison. If, on the other hand, such features appear even on a single original of the time of the Hermes the objection automatically falls to the ground.

As the strictures have been answered before (cf. the references given in Picard's footnotes, to which Mylonas's article in *ArchEph* [1933] 131ff. should be added), I shall confine myself to a few remarks, supplementing what has been said before with fresh evidence here and there.

The *unfinished back*, whether due to a later correction or not, is not, I think, comparable to the unfinished Roman copies, where different parts have reached different stages of work; for in the Hermes the back is competently modelled as a whole. It is a well-known fact that it was Greek practice (as against Roman), both in sculpture and pottery, to leave those parts that were not intended to be seen without a final finish. If the Hermes, therefore, was to be placed in a niche or against a wall the unfinished back should cause no concern. Among the many parallels I may mention the important, colossal head of a goddess in Boston, Caskey, *Catalogue*, no. 27: "the back of the head is merely blocked out in the rough."

The *polish* on the Hermes seems to me quite different from that on the Athena from the Pnyx and other Roman copies in that it is of a softer, more velvety hue, comparable rather to that on the face of the Demeter of Knidos in the British Museum. We may likewise compare the Greek Eubouleus (Athens, 181), so different in this respect from its Roman copies (Athens, 1839, 2650; cf. my *Sculpture and Sculptors*, fig. 511).

The use of the *running drill* observable in the hair of the Hermes is to be seen also in the Demeter of Knidos (cf. Ashmole, *JHS* [1951] 25, pl. IV), not to mention the Aberdeen Herakles or the Eubouleus. In drapery the use of this tool is, of course, in regular use from the time of the Parthenon frieze. Since the use of the *flat chisel* and the *gouge* in the fourth century is known (cf. Blümel, *Griechische Bildhauerarbeit*, pl. 19), one need not argue the point, especially after Morgan's remarks in *ArchEph* (1937) 62, and Praschniker's, quoted by Picard, p. 276, note 1.

As has been pointed out, the *strut* was necessitated by the pose of the figure. Such structural supports for marble statues were used in Greek sculpture throughout classical times. Generally an adjoining stele or statuette or piece of drapery served the purpose, but in a free standing, nude statue with a pronounced curve like the Hermes a connecting prop had to be added somewhere. An interesting comparison, made by Mylonas, *op.cit.*, is the little herm on Parian coins with representations of the Eros by Praxiteles. In the fourth-century statues dedicated by Daochos at Delphi the joining of the foot to the support gives stability.

I fail to see the pertinence of the argument that Hermes' *drapery* resembles the mantle of the Julio-Claudian prince in the Louvre (fig. 118). That statue is a Roman copy, signed by the copyist Kleomenes, of a fifth-century figure, with a Roman portrait head substituted for that of the original statue (cf. E. Paribeni, *Museo Nazionale Romano, Sculture greche del V secolo*, nos. 28, 29). The drapery is, therefore, a faithful though rather hard rendering of a composition a century earlier than that of the Praxitelean Hermes. In both cases, it is true, a mantle is draped over a tree trunk and so the folds are somewhat similar, but style and execution are totally different. The naturalistic touches in Hermes' drapery—Carpenter's "fingerprints" and "countersunk frets"—appear, as has been pointed out, in fourth-century gravestones, the Ephesian reliefs, and the sculptures from Epidauros (cf. e.g. *AJA* 35 [1931] 283, fig. 4).

The testimony of the *base* (not illustrated in Picard's book) is complex and important. It seems to be agreed that its lofty proportions and the design and projections of its mouldings place it in the second century B.C. It supplies, moreover, a further piece of evidence. As Dinsmoor has pointed out (*AJA* 35 [1931] 296ff.), there is on the plinth a half clamp cutting, the other half of which must have been on the missing portion of the plinth. The repair must be due, in Dinsmoor's opinion, either to a flaw in the marble, or it was caused by the prying of the statue "from its lead sealing in the socket of an earlier pedestal." As the second alternative seems more likely, this evidence lends weight to the opinion that the Hermes once stood on a different pedestal and was brought to the Heraion in Hellenistic times, along with the other statues mentioned by Pausanias, perhaps to form a kind of Museum, similar to the art collection of Pergamon (cf. Hansen, *The Attalids*, p. 321). If the Hermes were a Roman copy should one not expect it to have a good Roman base and a nice, solid plinth?

Picard suggests (p. 257) that the expression used by Pausanias (V, 17, 3) in referring to the Hermes, *τέχνη δὲ ἐστὶ Πραξιτέλους*, is ambiguous: "formule énigmatique! Il n'est pas affirmé qu'il s'agisse d'une œuvre de la main de Praxitèle." This would be indeed a strong argument, since it strikes at the literary evidence on which the attribution rests. But we need not worry. *Τέχνη*, with the name of the artist in the genitive, is used by Pausanias himself in plenty of unambiguous cases; cf. (in addition to the one instance conceded by Picard, viz. V, 17, 1): I, 3, 5; I, 8, 5; I, 43, 6; II, 21, 9; V, 24, 1; VI, 11, 9; VIII, 46, 5; IX, 25, 3; X, 13, 10; etc. Cf. also VIII, 42, 7. When Pausanias (IX, 27, 4) refers, on the other hand, to Menodoros' copy of Praxiteles' Eros at Thespiai (an exceptional case of substitution), he uses the unequivocal phrase *τὸ ἔργον τὸ Πραξιτέλους μιμούμενος*. *Ἔργον* and *τέχνη* are, therefore, merely variations of style.

Picard himself, as well as Carpenter (*AJA* 58 [1953] pp. 1ff.) reject Blümel's proposition (*Hermes eines Praxiteles*, 1948) that the Hermes is a work by a Praxiteles of Hellenistic date. That the head of Hermes

resembles an earlier type (cf. Blümel, *op.cit.* figs. 35, 36) is surely not surprising. In the best classical period there is a constant borrowing from former creations which today would amount to plagiarism.

Picard also rejects (p. 80, notes) Carpenter's claim that the support in the Hermes was an addition by the copyist and could be dispensed with in a bronze original, recalling in this connection Kreuzer's observation that the child's right foot rested on a branch of the tree trunk. With regard to the law of ponderation which Carpenter (*op.cit.* pp. 8ff.)—after personal experiments in front of a mirror—calls into question, I may say that it is not only an accepted tenet in art schools (cf. E. Lanteri, *Modelling, A Guide for Teachers and Students*, p. 88), but is regularly observable in classical statues. On the necessity of a support in the Pothos—now identified by Carpenter, *loc.cit.*, as a free-standing, spinning Eros, independent of any prop—cf. the remarks by Bulle, quoted by Arias in his *Skopas*, p. 56: "il Pothos è l'ultimo anello della catena delle figure la cui posizione stante non sarebbe pensabile senza un sostegno esterno. . . ." But perhaps Mr. Carpenter will now tell us that he has succeeded in spinning in the precarious position of the Pothos.

Taking all these various arguments into consideration, it would seem that the scales are still heavily weighted in favor of accepting the Hermes as an original work of the fourth century by the great Praxiteles.

The last hundred pages of the book give a comprehensive account of the other sculptures that can be associated with Praxiteles on literary and stylistic evidence. They give us a realization of how much more secure and extensive is our knowledge of this artist than of Skopas.

Before concluding we must mention another interesting aspect of Picard's new book. There is a tendency throughout, more pronounced than in the previous volumes of the *Manuel*, to search for mystical, symbolical interpretations. Even Praxiteles, heretofore considered a great humanist, becomes a religious mystic. It is true that, if we are to follow Cumont, many of the reliefs on Roman sarcophagi representing well-known Greek myths should be interpreted as symbolic of the life hereafter (but see Nock, *AJA* 50 [1946] 140ff.). Whether recondite meanings were implicit in Greek, non-sepulchral sculpture is another question. The descriptions of works of art in Euripides' *Ion* and in Herondas' fourth *mime*—as also the accounts of Pausanias and Pliny—would seem to bear out Nock's contention that "art shared with literature the subject matter and the freedom of application" (*op.cit.* p. 149). But these are large questions, to be answered by religionists.

We eagerly look forward to the next installments of Picard's great work—for great it is, however many details one may want to reject.

GISELA M. A. RICHTER

ROME

THE METROPOLITAN MUSEUM OF ART. HANDBOOK OF THE GREEK COLLECTION, by Gisela M. A. Richter. Pp. ix + 322 (pp. 161-290 = pls. 1-130). Harvard University Press, Cambridge, 1953. \$12.50 (paper \$10.00).

The Classical Collection of the Metropolitan Museum is the most extensive in the Western Hemisphere; only the Boston Museum of Fine Arts offers any comparable wealth and variety of material. Miss Richter's *Handbook*, replacing the 1930 edition of the *Handbook of the Classical Collection*, presents the Greek portion of the collection. The Cypriote and Etruscan collections of the Museum have been treated in earlier handbooks (the Cesnola Cypriote collection by J. L. Myres in 1914, the Etruscan material by Miss Richter in 1940), while Miss Richter's *Roman Portraits* (1948) deals with an important part of the Roman collection. The present *Handbook* is designed to serve not only as a guide to the Greek collection, but also as an introduction to Greek art, a goal made attainable by the scope and quality of the Metropolitan's Greek material. The entire development of Greek art—excluding architecture—from the Neolithic period to the first century B.C. is well and fully set forth here. Each chapter is introduced by a brief historical summary of the period covered; subject matter of figured representations (with mythological background where necessary) and notes on technique and function are simply and interestingly given. Most of the pieces mentioned are illustrated, and the museum number of each object, together with pertinent bibliography, is given in the notes.

The *Handbook of the Greek Collection* was arranged to correspond to the sequence of the Museum galleries of 1946, since when there have been many changes in displays, and still greater changes are projected for the near future. In order that the *Handbook* might remain useful through such changes, Miss Richter has wisely avoided reference to specific locations of objects by gallery or case number. The chronological order of chapters, the grouping of objects within each chapter according to material, and the special chapters at the end devoted to subjects which for technical reasons were displayed in separate galleries (all of the large sculpture, and all of the gems, coins and jewelry are grouped together in the text, pp. 134-158, as they were in the 1946 gallery arrangement), will make the *Handbook* more valuable as a guide to the collection than as a guide through the galleries. The illustrations, though copious, are for the most part small, and serve as a means of identifying the objects rather than of studying them; they will be most useful to the museum visitor using the *Handbook* as a guide. Unfortunately, the price of the volume will put it beyond the reach of most of those who want and need such a guide. It is to be hoped that some day an inexpensive handbook may be made available to the many people who receive their first introduction to Greek art in a visit to this well-rounded and important collection.

In the present unsettled state of the galleries due to the remodeling of the Museum, not all the objects discussed are on display. Visitors will look in vain for the painted gravestones from Hadra (pp. 132f.), the Giustiniani Diadoumenos (p. 138—the head, cast from the other New York Diadoumenos, is mentioned in the text but does not appear in the photograph, pl. 115c), the Apollo Lykeios (p. 140), the bearded Herakles (p. 142), and the Fighting Gaul (p. 142), for these and several other pieces are in storage pending the final disposition of the galleries.

The very interesting marble statue of a seated man (p. 90, pl. 70b) I am reluctant to accept as a Greek original of the second half of the fifth century, for it seems to me that the torsion of the figure is that of the late fourth century; the arm brought across the body as though holding a lyre suggests poses characteristic of the time of Lysippos. The drill work in the hair (just visible in the illustration) is at least unusual in a Greek work of the fifth century. I would also question the inclusion of the terracotta antefix with facing goats' heads (p. 129, pl. 109g) in the Hellenistic period; it seems to me Roman in feeling and execution.

The *Handbook of the Greek Collection* is another most welcome instance of the utilization of the large collections of ancient art in this country not simply as collections, but as the basis for artistic and cultural history. In a work of its size, dealing with a lively department of an ever-growing museum, certain errors are inevitable. A few may be noted here, most of them called to my attention by members of the Department of Greek and Roman Art of the Metropolitan: On p. vi, last line, for pl. 105g read 105h; pl. 41b, a kylix listed on p. 59 as a Siana cup does not have the offset lip characteristic of that type; pl. 117b is a detail of pl. 116b, not of 115b. The Praisos terracottas (pp. 294 note 11, 295 notes 2, 3, 4) have now been given to the Museum by the Archaeological Institute of America. The bronze goat on p. 51 (pl. 36h) is now differently mounted, with the front legs raised and the beard vertical. The graffito from Persepolis on p. 63 (pl. 45f) has been transferred to the Department of Near Eastern Archaeology. The bronze strainer on p. 83 (pl. 64g) is surely Etruscan, and the bronze statuette of drunken Herakles on p. 125 (pl. 104d) is now properly mounted on the analogy of replicas.

REBECCA C. W. ROBINSON

NORMAN, OKLAHOMA

VASI ANTICHI DIPINTI DEL VATICANO. VASI ITALIOTI ED ETRUSCHI A FIGURE ROSSE, by A. D. Trendall. Fasc. i, Vasi Proto-italioti, Lucani, Pestani e Campani. Vasi Apuli fino a circa il 375 a. C. Pp. IV + 97, figs. 9, pls. 28. Monumenti Musei e Gallerie Pontificie, Città del Vaticano, 1953.

By entrusting to Professor Trendall the publication of their collection of South Italian vases, the Vatican Museum authorities have guaranteed to scholars a scientific production of the first order, and given the

author an opportunity of stating his latest conclusions in this field of research, the fruits of more than twenty years' exhaustive study. Repeated visits to the museums concerned have given him a first-hand knowledge of practically all the material, including recent finds, so that no one can speak with greater authority on the subject. In this first fascicle are presented the vases classed as Proto-Italiote, Lucanian, Paestan, Campanian, and Apulian down to 375 B.C. The rest of Apulian with Etruscan and Gnathia will appear in the second fascicle. Of these fabrics Paestan and Campanian have already been extensively studied, and nearly all known Paestan is published except for the most recent finds. Apulian has attracted some expert attention, and a high proportion of the most interesting vases are well known. But Lucanian has remained the Cinderella as well as the Ugly Sister of South Italian red-figure vase-painting. Now we have a conclusive outline of its history. And it is shown to derive from Proto-Italiote Group A. This is an important step. The 5th century vases formerly classed together somewhat loosely as "Early South Italian," are now marshalled in two distinct camps, Group A and Group B. Group A incorporates the Pisticci-Amykos workshop (now shown to contain at least four hands), leading via the Dolon and Creusa painters to the first Lucanian artist, the Choephoroi Painter. The sequence cannot be precisely followed in this catalogue owing to the absence of vases by the Dolon and Choephoroi Painters, but studied in conjunction with Mr. Trendall's monograph "The Choephoroi Painter," the position becomes clear.

The Primato Painter who stands at the head of a second strand in Lucanian vase-painting, dating from the second half of the 4th century, is well represented. He is described as a pupil of the Lykurgos Painter and there is a useful footnote listing the principal works of this important Apulian artist. One would gladly know more of him, and what exactly is implied by this master-pupil relationship. Does one assume that Lucanian artists were trained in Taranto, or occasionally attended refresher courses? Or did the less successful painters from Apulia end up in the Lucanian back-water? In any case, despite a good send-off, and reinforcement of inspiration from Apulia, artistic degeneration was steady in this region, and Lucanian vases in general are more provincial-looking than those deriving from the other centres of production. To discover the reason one would perhaps need to settle in Armento for a while! To follow the Primato Painter, since there are no vases by the Rocanova Painter, Professor Trendall introduces the Painter of Naples 1959, pointing out that the man on V 26 (Pl. V) is wearing the "almost medieval" style of tunic that appears on one or two other Lucanian vases. It is also to be seen on the Sisypheos Painter's vase in London, B.M. 174, where the woman is pouring a libation from a nestoris, whence it has been suggested that this vase, which comes from the Basilicata, was made for a Lucanian client. There is a similar garment on a vase by the Riccardi Painter (*JHS* 63 [1943] 103).

In the Paestan section which follows, there is less breaking of new ground, for this fabric has for long been expertly studied. Though Paestum is actually situated within the borders of Lucania, there is little stylistic connection between the two fabrics. The term "Lucanian" in these contexts is primarily a description of style, and not entirely of locality. Paestan is closely bound to Campanian—a glance at a physical map gives the reason. It is by virtue of its very distinctive stylistic characteristics that it is treated as a separate fabric, and recent excavations leave scarcely a doubt that Paestum was the centre of manufacture. The site is indeed, owing to present excavation and Dr. Sestieri's publications, much in the public eye.

Of mid-4th century vases from the workshops of Asteas and Python the Vatican has a fine Asteas Phlyax, V. 19, and one can consider whether such vases are not the best that 4th century Italiote ceramic art has to offer. There are also several smaller vases, such as V. 25 and V. 20 that preserve a good Greek tradition. There is a good example of the Boston Orestes Painter's work, and one vase by the Painter of Naples 2585, the final quasi-barbarous degeneration not being represented. One remaining query is whether in fact the Dirce painter's workshop is to be classed as Paestan, and what precise connection it has with late Attic and early Campanian.

Campanian is the hardest of the four fabrics to assimilate, and the 30 vases described can only be a small selection from its varied workshops. Many of the more interesting painters are not represented. Professor Trendall contrives, however, to provide a valuable skeleton of the structure and history of this rich century of provincial Greek vase-painting. And there is plenty of flesh waiting to cover the bones.

Apart from V. 51, there is little in the Vatican datable to the first half of the 4th century, and only one attractive skyphos, V. 52, to represent the circle of the Parrish painter. The second half of the century is more fully represented, and whereas to some extent Professor Trendall has earlier dealt with "groups" rather than individual painters, several well-defined artists now emerge, such as Mr. Cambitoglou's Manchester Painter (from the A.V. Group). The C.A. Painter and the A.P.Z. Painter, with their strong Apulian affinities are also well represented. Professor Trendall is careful to note the colours used on each vase and it is well to remember that the term red-figure in the 4th century is not always a description of appearance. Many vases from the second half of the century are richly polychrome, with a range of colours showing that Magna Graecia also had its version of the Athenian Kerch style.

Great interest attaches to two groups mentioned briefly at the end of this section, the Lentini and Lipari groups. Most of the vases in question have been found in Sicily, though the plunge of admitting a Sicilian fabric has not yet been taken, and they are for the time being appended to Campanian. The Lentini Group is said to derive stylistically from the C.A. Painter, but I find them much more appealing. There is a light breath of good Greek air about Syracuse 486372 and

33797, and the suggested connection with the Lloyd Painter's Oxford vase is challenging. The Lipari Group (most of the vases come from the island) is very polychrome, and in choice of palette as well as style of drawing may be compared to late Kerch. Few of these vases are as yet published.

In the last section we swing back from the mazes of latest Campanian to Proto-Italiote Group B, and Apulian down to 375 B.C. Professor Trendall here elaborates his conclusion that the workshops of the Dancing Girl and Sisyphos Painters, situated at Taranto and dating from the last quarter of the 5th century, led, in two parallel streams, directly to the Apulian style, culminating in the Darius Painter. This can be traced by the reader from the excellent photographs. Wherefore the question arises, is there any object in calling any vases "Early South Italian"? Professor Trendall seems to hint that he may soon discard this appellation altogether. The 5th century vases would then presumably be called Proto-Lucanian (Group A) and Proto-Apulian (Group B). While logical, this would perhaps obscure the fact that these 5th century vases are still very close to Attic. That they were for long confused with contemporary Attic work was not a sign of a total want of discrimination. Was there initially anything inherent in the Pistici-Amykos workshop that caused it to lead to Lucanian? Only perhaps the circumstance of the locality of their workshop, which it would be welcome to prove to have been at Heraclia or Metapontum. (Rivers on the map would have made it easier to see the natural lines of communication between the coastal colonies and the up-valley Lucanian towns.) The question of name is ultimately one of emphasis. Do we want principally to consider the 5th century vases of Magna Graecia as precursors of local provincial styles, or as the products of the first immigrant Attic artists and their pupils, as a St. Luke's summer for red-figured vase painting? The difference between the two groups A and B in the early stages is perhaps slightly exaggerated, coloured by knowledge of their later divergence. On p. 69 Professor Trendall says that Group B presents almost from the beginning a noteworthy contrast to Group A both in style and subject. But earlier on p. 2 he says that for a short while the two groups run side by side, similar in form, style, and decoration, diverging only at the turn of the century. Again it is a question of emphasis, but I think that in the early days, the divergence between the two groups can be over-stressed.

The amount of Apulian material is so overwhelming, that it is imperative to divide it up somehow. Professor Trendall has chosen to divide the vases deriving from the Sisyphos Painter into two groups, one comprising large vases in elaborately decorated style with a rich variety of subjects, the other comprising the smaller, simpler vases. Except for the three bell craters by the Sisyphos painter, and two vases by followers, the monumental stream is not represented in this fascicle. But there is an excellent opportunity to study the lesser line. The Tarporley Painter is so well known that we need not regret his absence. There are very useful vases by his followers and by the Lecce

Painter (V. 1 seems nearer to Tarporley than to Lecce). We are also shown in this fascicle what Professor Trendall calls vases of the first Apulian period (that is, dating from 380-370), such as V 5 and Z 2. The drawing corresponds with that on the large vases centering round the Iliupersis Painter. The characteristic rather tidy, very linear, saltire squares will be noted. Is it true, as is rather implied, that these smaller vases were never by the same painters as the larger ones? None of these early Apulian vases, as it happens, have interesting subjects, with the exception of T 2, on whose connection with the Sarpedon Painter Professor Trendall is mysteriously silent.

There is a misprint on p. 25—second quarter of the 4th, not the 5th century.

This catalogue, as has been seen, has great intrinsic merits. It also has the additional interest of appearing at a moment when politically, as well as archeologically, Southern Italy is forcibly claiming attention.

N. R. OAKESHOTT

OXFORD

DIE JÜNGERETRUSKISCHEN STEINSARKOPHAGE, by Reinhard Herbig. Deutsches Archäologisches Institut, Die antiken Sarkophagreliefs, edited by Friedrich Matz (unter Benutzung der Vorarbeiten von Friedrich Matz d. Älteren, Carl Robert, und Gerhart Rodenwaldt), vol. 7. Pp. 137, 2 pls. of drawings, figs. 9, pls. III. Gebr. Mann, Berlin, 1952.

The appearance of the seventh volume of the *Corpus* of ancient sarcophagi is a noteworthy event and a great testimonial to the energy of the present editor F. Matz (the Younger), C. Weickert, and the author. Letter press and plates had been destroyed during the war and the book had to be reconstituted from proof. Perseverance in the face of adversity was triumphant in the end, and the project, which is now being carried on by the fourth generation of German scholars, advanced an important step. Something has been said in this space by A. Rumpf (*AJA* 58 [1954] 178) about the changing concept of the *Corpus*. It would be tempting to add further animadversions on the development of this remarkable example of basic research. Suffice to say that in the twenties and the thirties of this century under Rodenwaldt's leadership a substantial organization was developed to register all bibliographical references to ancient sarcophagi and to record by photography all known pieces and fragments. As material accumulated, publication slowed down. Out of this, the most prosperous phase of the project, there came only A. Rumpf's admirable volume on *Meerwesen* (1939). During the war, much of the material so patiently collected was lost—a warning that beyond a certain point the dangers of delay of publication may outweigh the advantages of greater approximation to completeness. In addition to the volume under review, there are still to come the volumes on Dionysiac sar-

cophagi (by F. Matz, to whom I owe a report on the status of the *Corpus*), on Muses, Human Life, Amorini, and Decorative sarcophagi, as well as two regional volumes on the sarcophagi of Ravenna and those of Gaul.

Within the general plan of the *Corpus*, the volume on Etruscan Stone Sarcophagi was apparently something of an afterthought. Unlike the compilers of other volumes, Herbig did not have at his disposal a solid accumulation of material amassed by previous workers; he had to do his own collecting in the library and in the field and deserves additional credit for performing this task. He has combined the material thus collected with an enlarged version of his pioneering article on Etruscan sarcophagi (*AA* 49 [1934] 507). The resultant volume is really two books and evokes two different valuations. Viewed as a series of studies on Etruscan sarcophagi, it must receive nearly unqualified praise. Viewed as a volume of the *Corpus*, it is open to some objections.

Let us consider first the contributions made by Herbig in his studies of the problems of Etruscan sarcophagi. They appear in the thirteen short chapters of the "Systematic Part." These deal with the fore-runners of sarcophagi in Etruria; with archaic Etruscan sarcophagi; shapes of sarcophagi; subject matter of the sarcophagi reliefs; shapes of lids; types of lid figures; portraits; pictorial decoration; the manner of placing sarcophagi in funerary chambers; inscriptions; dating; regional centers; and the survival of motifs introduced by sculptors of Etruscan sarcophagi.

Some of these chapters contain pioneering contributions. Thus Herbig works out in clear and consistent terms the structural types of the caskets and of the sculptured effigies, which adorn the lids. He collects important data on the manner in which color was applied to sarcophagi and establishes a sequence—from the earliest pieces, through a refined polychromy at the end of the fourth century, to a "garish polychromy" of the later Etruscan-Hellenistic sarcophagi. He makes the interesting suggestion that the Amazon sarcophagus in Tarquinia and three other painted sarcophagi may be regarded as products of the same great school of painters to whom we owe the famous wall paintings in the tombs of Tarquinia. Herbig's observation that pigments were usually applied directly to the surface of the stone and proved very fugitive, raises interesting technical problems. Unfortunately, none of the material collected was subjected to a scientific analysis of pigments (cf. *AJA* 55 [1951] 276).

Other chapters contain clear and concise summaries of factual evidence. These are usefully supplemented by lists of sarcophagi arranged according to shapes and according to subject matter, and by a list of attributes associated with the portrait-figures of the dead. There are good observations on the interpretation of the postures of the lid-figures, whose attitudes change from those of eternal sleep to those of perennial feasting. The semi-erect, semi-recumbent figures of banqueters facing the spectator ("Façade Type") suggest that the dead may have been regarded as capable of entering

into communication with their surviving relatives, who came to visit the sepulchre.

Herbig cites some astonishing examples of Etruscan crypts crowded with dozens of sarcophagi surmounted by recumbent figures of the dead. These arrays in family crypts point toward an interesting feature in the Italic attitude toward the dead. It is clearly the main purpose of the "lid-figures" to present the ancestors in concrete and tangible form. The dead and the living members of a clan or a *gens* belong together. We see here the same primitive "realism" as in the impersonation of ancestors in the Roman ceremony of *laudatio funebris*. While the underlying belief may be very old, it is not unlikely that the use of sculpture for the portrayal of ancestors may be a later development. If, as Herbig argues, the emergence of sepulchral portrait statues on Etruscan sarcophagi falls between 400 and 300 B.C., it is probable that in Rome, too, sepulchral images on sarcophagi and family vaults analogous to those of Etruscan noble families were introduced about the same time.

The chapter on "Survivals" presents a bird's-eye view of sculptured monuments, ancient, medieval, and modern, in which the dead are shown reclining or asleep on the tops of their sarcophagi or sepulchres. Herbig believes this notion to be "Oriental-Etruscan," but the two Greek examples (Belevi and Alexandria) counsel caution. For the semi-recumbent type I should like to suggest that the idea of a perennial banquet, of which the dead partakes, may have acquired particular currency in Eastern Greece during the archaic period. True, we have no examples of funerary Greek statues of this kind; we do have funerary reliefs. The archaic Etruscan terracotta sarcophagi of Caere are clearly enlargements of Ionian terracotta figurines or translations of Eastern Greek reliefs. The Etruscan achievement was limited to expressing a Greek belief through an existing Greek type but enlarging the type to human size. The other type of "lid-figure," that of the dead stretched out on his back as if in sleep, seems to me to have an entirely different origin. Herbig mentions the Punic anthropoid sarcophagi but overlooks the vital evidence of the sarcophagi from Sidon. Two of these were re-used Egyptian pieces. It seems clear that the Egyptian anthropoid coffin is the original source for this type. It was taken over by the Phoenicians, who subsequently Hellenized its stylistic appearance (cf. G. Contenau, *La civilisation phénicienne* [1926] 241ff.). Presumably, it passed directly from Phoenicia to Italy. The passive attitude toward death symbolized by this type was not acceptable to the Greeks. In all the variety of forms used by Greek artists to perpetuate the memory of the dead we find quiescence—we do not find lifeless immobility. It is an interesting sidelight on the difference of Greek and Roman mentality that this "sleeping" type of sepulchral image popularized by the Etruscans was to some degree maintained in sepulchral art of the early Roman Empire.

So much for those chapters, in which the author makes indubitable advances or presents competent summaries. There are others more controversial. Thus the chapters on chronology and subject matter offer con-

siderably less than one might hope for. In the chapter on chronology, Herbig surveys the scanty "objective" data. He duly emphasizes the importance of Zei's discovery of Latin inscriptions on sarcophagi from the crypt of the Salvii (family of Emperor Otho) at Ferentum. Two have consular dates in the years 67 and 23 B.C. and prove beyond cavil that the latest (and worst) types of Etruscan sarcophagi continued to be made down to the time of Augustus. Beyond that, Herbig attempts to arrange a chronological sequence on the basis of sarcophagi shapes and of postures of the lid-figures. The sequence is probably sound in a general way, but it is very general. One can advance beyond it by careful comparison of Etruscan sarcophagi and Etruscan urns with monuments of Greek art (cf. *Worcester Art Mus. Ann.* 5 [1946] 15 and *JHS* 65 [1947] 45). Such comparisons prove that Herbig's dates for the two remarkable Etruscan sarcophagi in Boston are too early. The "marble" sarcophagus with Amazons depends on the style of the Mausoleum phase in Greek sculpture and cannot be earlier than the middle of the fourth century. The tufa sarcophagus must date around 300 B.C. or later; in addition to comparisons given in *JHS* 65 (1947) 47, compare the head of the dead man on the lid with the portrait of Poseidippos (A. Hekler, *Greek and Roman Portraits* [1912] pls. 110f.).

The chapter on subject matter of the sarcophagi reliefs amounts to a brief list with some interesting remarks on the reasons which led Etruscans to choose certain Greek myths for the decoration of their sarcophagi. Did the Etruscans read these legends? Did they imitate Greek works of art which portrayed these special themes? Herbig has little to say on these fundamental questions; there is certainly no systematic attempt to solve these problems. Yet he ingeniously suggests (in the Catalogue, 44, no. 79) that the wreath-crowned man represented on the lid of a sarcophagus in the Vatican was a translator of Euripidean dramas; the reliefs of the casket show scenes from the *Electra* and the *Phoenissae*. Methodical comparisons with inscribed representations of Greek myths in Etruscan art can lead further toward possible identification of literary sources. As to artistic prototypes, much can be gained from careful study of the compositions used on Etruscan urns and mirrors, and beyond that, in minor arts of Hellenistic Greece.

That Herbig has paid some attention to inscriptions is praiseworthy and what he has to say about the placing of inscriptions and the techniques of writing is useful; but he has neglected to provide an index arranged by epigraphic publications (*CIE*, Fabretti, Leifer, etc.), a fatal defect from the point of view of students interested in the sarcophagi for the sake of their inscriptions.

From the "Systematic Part" of essays and studies, we turn now to the Catalogue, and, more generally, to the function of the volume as part of a *Corpus* designed as a comprehensive collection of material. Here certain methodical suggestions come to mind.

1. Definition. In the volume under review, Catalogue precedes all explanatory matter. This seems to me a

mistake. The readers expect to gain some insight into the scope and arrangement of the volume at the beginning. Herbig's brief preface fails to present a satisfactory definition. We are never told exactly what is being collected. Etruscan sarcophagi are very repetitive. The author might have limited himself to sarcophagi with decorated caskets; or to these and sarcophagi which have portrait figures on lids; or to all of these and all inscribed pieces; but once the criteria for inclusion were established, all pieces should have been treated with some degree of uniformity. As it is, some plain and uninscribed sarcophagi and a number of insignificant fragments are catalogued, while large groups of material are treated summarily. A total of fifty-five pieces at Tarquinia "not of outstanding quality . . . need not be included in the numbered Catalogue," . . . and similar remarks are made about material in Tuscania, Fattoria Santa Caterina, and in Vulci.

2. Arrangement. Previous volumes of the Corpus were arranged on a typological (iconographic) basis. This arrangement produced immediate results for the chronological range and geographical extension of designs and motives. Herbig adopts in his catalogue an arrangement by present location. Frankly, I see no sense in this. If a geographical criterion was to be employed, surely the marked regional character of Etruscan sarcophagi would have made grouping by place of origin useful and practicable. The arrangement by present location scatters pieces from the same workshops over the entire catalogue. The drawback is aggravated by complete lack of recognizable order in the sequence of the plates. They do not follow the sequence of the catalogue numbers; views of the same piece are sometimes placed on widely separated plates. I have a suspicion that perhaps some kind of a chronological sequence was intended, but the author provides no explanation.

3. Individual Catalogue Entries. A Corpus is not the same thing as a repertory. A repertory consists of lists alluding to the most important reference or references for each item. The objective of a Corpus is the factual presentation of relevant data for each piece. Each entry should, therefore, include: (a) the salient facts about the discovery and history of a piece; (b) an irreducible minimum of description; (c) the best possible approximation to dating and geographic attribution; (d) selective bibliography; (e) illustrations, which, ideally, should provide a complete visual coverage of all essential features of the piece described.

Herbig describes a number of sarcophagi at length, but for other, well-published pieces he refers to previous publications adding only those details which he desires to correct. This defeats the purpose of a Corpus which is to relieve the scholar from the necessity of lining up a library in order to study a group of monuments.

Dating is always a problem. Herbig is justifiably sceptical about the possibility of assigning precise dates to many of the Etruscan sarcophagi; the great majority of the catalogue entries have no dates. The reader then turns to the chapter on chronology, but if he is

interested in the dating of a particular piece, he is liable to be disappointed, for only a few pieces of the Catalogue are specifically referred to in this discussion. In my opinion, even a very general date for each piece would have been better than nothing (e.g. "4th-3rd cent. B.C." or "250-100 B.C."). I should furthermore like to suggest that all volumes of the Corpus might include a Chronological Chart, which would present in three separate columns the certain, the reasonably inferred, and the purely tentative dates for all pieces included in the Catalogue.

4. Inscriptions. Since all of the Etruscan inscriptions are ultimately to be published in *CIE*, their treatment in the Corpus presents a problem, but I cannot say that Herbig's solution strikes me as completely satisfactory. Usually, though not always, he gives references to *CIE*; but even in the case of unpublished inscriptions he never provides a complete text. His list of inscribed sarcophagi is no substitute, even though it does include a curious selection of facts gleaned from the inscriptions. It is my suggestion (which may merit consideration for the Greek and Latin inscriptions in the other volumes of the Corpus) that at least a transliteration of each inscription should be included, except in the few instances where the inscription is very long and very well-known (as, for example, the "Pulena Roll," no. 111). For these, selective bibliography would suffice.

5. Completeness. The author admits that there must be Etruscan sarcophagi in Tuscany which have remained unknown to him. For this, nobody will blame him. No examples are listed for France or the United States. For the Louvre, J. Charbonneau kindly communicates the following item: Héron de Villefosse, *Cat.* (1896) 137, no. 2350. Campana Collection, from Chiusi. Probably second century B.C., similar to that in Palermo (Herbig, no. 76). Reclining woman on lid. On the casket: gate, marching warrior to right, horseman, two warriors on foot wearing cuirasses, horseman, cuirass-warrior on foot, winged genius (*vanth*). For the United States add: Mount Holyoke College, on loan from Harvard. Gift of American Exploration Society, 1901, "found in a tomb at Musarna with six others." Description by S. Burrey: Plain sarcophagus of peperino, lid of tufa with semi-reclining female figure. Inscription on edge of lid (first word uncertain) ends in *-a Larthal Larthia*. Traces of red paint on pillow, drapery, inscription, and on sarcophagus. Sarc. L. 2.17 m. W. 67 cm. H. 67 cm. Lid. L. 2 m., W. 48 cm. H. 58 cm. Museum of Natural History, Chicago 105 222. Large alabaster sarcophagus with headless figure of *Lartha Marcnei* (cf. *CIE* I, no. 1306 which gives the same inscription but totally different dimensions—those of an urn). From a robbed grave found on the land of P. Casucini, Chiusi. Casket reliefs: gate, half-lion half-sea monster, tree, *ketos*, monster head with pig-like (dolphin?) snout. Fine Chiusine work, related to, but of shallower workmanship than, the *Hasta Afuni* lid-figure in Palermo (Herbig, no. 76). Dimensions (courtesy R. A. Martin): Sarc. L. 1.98 m., W. 53 cm., H. 51 cm. Lid, L. 2.08 m., W. 61 cm., H. 61 cm.

6. Format. The overpowering folio of earlier volumes has been abandoned. At long last the *Corpus* is a book, not a cargo. Typography and plates are of very high order.

In over-all appraisal we may say that while Herbig's book is not ideal as a collection of material, it more than compensates for these defects by many suggestive contributions to our understanding of sepulchral architecture and sculpture not only of Tuscany but of many other regions of the Classical world.

GEORGE M. A. HANFMANN

HARVARD UNIVERSITY

SCAVI SOTTOMARINI IN LIGURIA E IN PROVENZA by Nino Lamboglia and Fernand Benoît. Pp. 179, figs. 164, 2 folding maps. Istituto Internazionale di Studi Liguri, Bordighera, 1953.

Nino Lamboglia of the Institute of Ligurian Studies, Bordighera, and Fernand Benoît of the Musée Borély, Marseilles, have each contributed an extensive article to this publication which reports the first-fruits of a new phase of archaeological endeavor: undersea archaeology.

The undersea excavations conducted at sites of ancient shipwrecks on the bottom of the sea along the coasts of Liguria and Provence, by means of salvage and oceanographic ships, and divers equipped with aqualungs, are cited in detail. Numerous photographs distributed through the texts give a clear picture of the actual "digs."

The first part, by Lamboglia, deals with the undersea finds along the coast of Liguria. He devotes particular attention to the Albenga cargo vessel which, in importance, will rank with the ship of Nemi. The Roman cargo vessel was discovered about one mile off the shore of Albenga at a depth of about forty meters. The systematic exploration begun in February 1950 by the Italian salvage ship "L'Artiglio" initiates the first attempt at undersea archaeology in the open sea.

The cargo of the Albenga vessel is composed of an estimated 3000 amphorae of which about one-third (110 intact) have been recovered. Particular attention is given to calculating the number of amphorae, for a cargo ship's capacity was then measured not in tons but in amphorae. Interesting references to Cicero, Pliny, and a Flaminian Law are cited by Lamboglia in order to throw light on the Albenga vessel's capacity. Although the exact contents of the amphorae are difficult to ascertain, wine seems the most probable. All the amphorae were coated on the interior with a bitumen-like inflammable substance, which was no doubt used to make the vases impermeable rather than act as an aromatic device for the contents.

The main basis for chronology is found in the study of the Roman amphora's evolutionary development for, curiously enough, no stamps or graffiti have been discovered. One of the fruits of Lamboglia's study of amphora shapes for the Albenga vessel is the notation that Roman amphorae tend to get taller and thinner

as time progresses. In the light of this new observation, one must reverse J. Calbré Aguiló's suggested evolution (*Corpus Vasorum Hispanorum*, Madrid, 1944). The Albenga amphorae, considered in their proper evolutionary sequence, provide a date for the cargo vessel between the end of the second and the beginning of the first century B.C. This date is corroborated by the numerous plain vases of Campanian origin about which Lamboglia has written the definitive book (*Classificazione preliminare della ceramica Campana, Atto del Primo Congresso Internazionale di Studi Liguri*, 1952).

Apart from the great number of amphorae brought to the surface, a variety of other objects have appeared: sections of lead pipes; lead sheathing attached to wood by copper nails (possibly the deck); fragments of bronze helmets which may indicate a need for defense in troubled waters; a lead wheel with strange perforations, which presented a perplexing problem of identification, and may now find its explanation in a recent article by Tea Coco ("Sulla cosiddetta 'ruota di manovra' della nave romana di Albenga," *Revista di Studi Liguri* [Jan.-March, 1954] pp. 55-58), where it is identified as a grappling-type anchor, a type still used today in this region. A lead animal horn may belong to an animal head decorating the prow of the ship. Wood fragments which have emerged show a variety of the kinds used in construction: oak, pine and fir. Fragments of tile no doubt belong to the roof of the poop deck cabin as is evident in many representations of Roman ships in mosaics and frescoes.

An appendix reports numerous finds of amphorae and another possible shipwreck site (Pegli-Genova) along the Ligurian coast. The majority of amphorae discovered fall in the second or first century B.C.; one, however, from Capo Melo follows the Greek tradition (ovoid body, short neck) and dates from the fourth century B.C.

Lamboglia concludes from the available evidence of undersea archaeology that the Ligurian coast was an active maritime route in the period of the Republic and that traffic decreased in the Empire owing to the safe land routes. From all indications, the Albenga vessel was one of the largest commercial transports of the Mediterranean in this period.

In the second part of the publication, Fernand Benoît reports (in French) the undersea discoveries along the coast of Provence. The chief find is another shipwrecked cargo vessel, with innumerable Greek and Roman amphorae, which is being systematically studied aboard the "Calypso," immediately off the rocky coast just west of Marseilles at a depth of fifty meters. American readers may be familiar with the Marseilles shipwreck through an article with color plates by Captain Jacques-Yves Cousteau in *The National Geographic Magazine*, January 1954.

The frequent appearance of the stamp SES(tius) on the amphorae brings to the mind of the author the wealthy Roman shipowner, Marcus Sestius who, according to Livy, lived on the island of Delos. The interesting and thought-provoking allusions to Marcus Sestius, and a villa on Delos with floor mosaics carry-

ing similar symbols (trident and anchor) as the stamps, and the identification of the Sestius stamps on the amphorae with the Delos shipowner, require further and more specific investigation to prove convincing.

The trip of the ill-fated cargo vessel is reconstructed along these lines: it left from the Greek islands with a load of wine in Greek amphorae and made port in the region of Naples, where it took on a further cargo of wine, this time Campanian in Roman amphorae. Many of the Roman amphorae have, placed above the cork, seals made of *pozzuolana* (volcanic mortar) which bear stamps that point to famous Campanian wine-growers of the period. In addition, a large order of plain Campanian pottery was loaded aboard the ship which then proceeded to the southern coast of France where it became shipwrecked.

The finds are now deposited in the Musée Borély at Marseilles. Among the amphorae sent to America, one was presented to The Metropolitan Museum by Captain Cousteau through the United States Liaison Committee for Oceanographic Research Incorporated.

Benoît next lists and discusses sporadic finds along the coast of Provence: a group of colossal architectural blocks (column-drums and architraves weighing an estimated 210 tons) were discovered in shallow water at Saint-Tropez and were, no doubt, destined for the colossal temple at Narbonne; amphorae and lamps of the end of the third century A.D.; a hoard of bronze coins belonging to the emperors of the second half of the third century A.D.; a bronze panther, heavily corroded, from near Monaco (published also by R. Lan-tier, "Panthère en bronze trouvée en mer près de Monaco," *MonPiot* 46 [1952] 69-76). Lead stocks, remnants of lead and wood anchors, are found frequently. Some of them bear representations which may have apotropaic values, such as the head of Medusa. Other sections are devoted to naval iconography, original sites of fisheries, fish-salting areas, ports, moles, quays and coastal towns now submerged. The publication proves most stimulating reading, and stresses the value of undersea archaeology. The illustrations, in particular the excellent profile drawings of the amphorae, clarify the discussions and descriptions in the texts. As in Pompeii, the catastrophe inflicted on these Roman cargo vessels of the Republic has, in a sense, preserved these relics which offer a revealing glimpse into a moment of the past.

MARIO A. DEL CHIARO

ROME

LE TIBRE, FLEUVE DE ROME, DANS L'ANTIQUITÉ, pp. 367, pls. 34; RECHERCHES SUR LE CULTE DU TIBRE, pp. 124, pls. 15, by Joel Le Gall, with preface by Charles Picard. Publications de l'Institut d'Art et d'Archéologie de l'Université de Paris, Vols. 1 and 2, 1953.

In this thesis and supplementary thesis for the doctorate, M. Le Gall discusses the Tiber's meaning in

Roman religion, and its role in communications, whether as a highway or as a barrier. The work, imposing in form and scope, will doubtless prove a welcome replacement for the superannuated "L'Isle Tibérine" of Besnier. Because of its importance it seems well to indicate a few respects in which the survey is incomplete and the conclusions, in the reviewer's opinion, are misleading. As often in detailed treatment of large subjects, the major work was finished and the inferences drawn several years before the date of publication, with the result that some studies have been overlooked or incompletely assimilated. Even the best scholar's control of his bibliography is to some extent dependent upon chance, and the author disclaims any intention of covering his vast field completely, but some bad-tempered gremlin misled Le Gall more than once. He missed Saatmann, Jüngst, and Thielscher on the Pons Subclivius ("Caesars Rheinbrücke," *BonnJbb* 143 [1938] 83-208) though he refers to a minor article of theirs; he knows some of Ashby's work, but ignores his papers in *BSR* and the important article on the Via Tiberina (*AttiPont* Ser. 3.1 [1924] 129-175); he refers to a popular and undocumented article by the Hollands in *Archaeology* (1950) but overlooked the reviewer's serious effort in *TAPA* 1949, 281-319, where (except for questions concerning the island) a great part of his thesis was anticipated. Startling to any topographer is the neglect of George Dennis, *Cities and Cemeteries of Etruria* (London 1883), whose inspired descriptions open the old campagna to those born too late to study it with unlimited leisure and under conditions nearer the primitive. Also missing are Rasi's *Sul Tevere e sua navigazione* (Rome 1827) and S. A. Smith's *The Tiber and its Tributaries* (London 1877). The last is, in spite of its age, the most illuminating commentary on the river in its practical aspects. Cozzo's *Il Luogo Primitivo di Roma* (Rome 1935) should be mentioned if only for its superb illustrations.

On the technical background of Tiber studies Le Gall presents useful material, e.g., on normal seasonal variations and the distinction, not always clearly realized, between high water and flood. He raises again the frequently mentioned point that evidence from the Farnesina and elsewhere shows the level of the Tiber to be higher at present than in antiquity. This condition is undeniable, but any statement about it should avoid the inference that the water is deeper. Though remains once above ground are now below the water level, the relation between bed, water level, and top of bank differs little if at all from the ancient except where there has been artificial dyking. The river has elevated its own bed and banks by silting (Smith 89; Nissen, *Ital. Landeskunde* 1. 315). This point has a bearing on the existence of a ford at Rome which Le Gall rightly dismisses as impossible (1.43 n. 1, 91; cf. *TAPA* 1949, 311). He is unaware of the importance of one-way travel by raft, and so has overlooked the service of the Tiber to men of the late Stone Age whom it carried "recto flumine" through otherwise unbroken forest to the treasure of salt in the lower valley (*TAPA* 1949, 282-288 vs. Le Gall 1. 60, 330).

It is improbable that even in later antiquity much local produce went down river in "barques" (1.56), which, as the author himself observes elsewhere, could be returned only by laborious towing (1.167. Cf. Propertius 1.14.3). Rafts, however, could be broken up at journey's end and sold for fuel or building material, a common river practice and one still in use on the Tiber even in the nineteenth century when deforestation had reduced the timber available (Smith 36; Nissen 1.318; Dennis 1.52). There would be no problem about water-borne "fret de retour" (1.59) under these circumstances. As to how timber was conveyed from the upper valley (1.266), it was either floated as loose logs or lashed into rafts to carry other freight. Boats, which certainly existed on the Tiber for limited uses, are naturally represented on coins and reliefs in preference to rafts which have no significant shape, whereas a boat is a recognizable symbol of transportation, no matter how crudely or at what scale it be drawn. In common use, the raft, being expendable and of very shallow draught, would have the advantage over other carriers, especially from the quarries along tributaries. Le Gall consistently underestimates the force of the current (1.40, 62, 60, 59, 113 etc.) because he has neither tried the river himself nor heeded those who have (Dennis 1.137; Davies, *Pilgrimage of the Tiber*, London 1873, 190, 192; Smith 35; *TAPA* 1949, 284 with notes). As to Greek navigators in Rome in the fifth and fourth centuries B.C. (1.62) the presence of Greek objects proves no such contact, as the author himself notes on the preceding page (cf. Säfund, *Le Mura di Roma Repubblicana* 175, 177). Le Gall's own knowledge of the order in which quarries came into Roman use should have given him more respect for the power of the river, since stone could obviously be brought more easily from Grotta Oscura, about ten water miles above the city, than from Monte Verde, a fraction of one mile in the wrong direction. His remarks on Grotta Oscura (1.57, 97) suggest that he did not see the implication. Only the argumentum ex silentio supports his contention that the use of oxen for towing was "une innovation relativement récente" in the time of Procopius (1.325). He has spent some time in demonstrating the decline of commerce and the general decadence of the late imperial age. Is it likely that the tow path "sans obstacle" from Ostia to Rome and the elaborate organization which kept ox teams always in readiness were creations of such a time rather than survivals (soon to perish) of past wealth and efficiency? (cf. *TAPA* 1949, 301-303.)

On the trip reported in *Archaeology* 1950, some crucially important observations on tributaries were made and pointed out to the reviewer by the late Dr. Leicester B. Holland: a tributary establishes a landing place by creating a backwater below its mouth, by building a stony beach for solid footing above the sucking mud of the river's edge, by breaking down the high perpendicular banks into slopes easier to climb (*TAPA* 1949, 284, 287). The tributaries at Rome made more history than the meanders on which Le Gall

relies (e.g. 74). The slowness of river travel necessitated stops on downstream journeys. At Antemnae was an ideal location where a good hill for camping was on the downstream side of the Anio mouth. Stone Age artifacts have been found there (*TAPA* 1949, 309 notes 114, 116), and if the Capitol had not been too much disturbed by continuous occupation, some sign of its early use as another such station would doubtless appear (*TAPA* 1949, 288 with notes 32, 7, 34). There the confluence of the Petronia and the Tiber create a landing which developed into the Forum Holitorium, while the "asylum of Romulus" may be a reminiscence of a travelers' refuge on the hill. The other much-used landing, the *emporium* at the Aventine was just below the Circus brook, and the ferry landing was probably a *portus* just below the Forum brook which became the Cloaca Maxima.

The reviewer completely agrees with Le Gall on his basic theory of Rome's development into an important town: that the Tiber was unimportant to the first permanent settlers, all-important as a barrier in the Etruscan period when the Roman crossing became dominant, and less significant again when as an obstacle it no longer counted, and as a carrier it was disqualified by natural disadvantages except for freight too heavy and bulky for long hauling by ox cart; moreover, that the choice of Rome as a crossing was dictated by human relations rather than by geographical necessity, and that it was established long after its rival at Fidenae. However, she still believes that the Roman crossing began as a detour around what Le Gall calls (1.60) the *verrou* of Veii and Fidenae toward the end of the orientalizing period shortly before the coming of the Etruscans to Rome (*TAPA* 1949, 308ff. vs. Le Gall 1.53); and that it was a *dernier* rather than a *premier pont* (1.41), since the object was to place it as far as possible upstream, rather than at the nearest point possible to the mouth of the Tiber. In opposition to De Sanctis, Lugli, Calza, De Angelis d'Ossat, and other Italian scholars, Le Gall considers the island a negligible factor. He seems to conclude from the case of Paris that a river island can be useful only as the actual site of a town and disregards its possible function as a stepping stone to make it easier to set up a permanent crossing.

The second volume, though largely negative, contains important observations on the prominence of water cults in Italy and their vitality as part of the popular religion; on the absence of any important god of the Tiber, since the people addressed their prayers to the waters themselves without need of temple or image; on the colorless figure of the Hellenized Tiberinus; on the power of stream boundaries in law and religion. This publication should set the river cults in a truer perspective and end the myth of the "ford" at Rome and of the Tiber as the *Lebensader* of the city.

LOUISE ADAMS HOLLAND

BRYN MAWR COLLEGE

DER RÖMISCHE IMPORT IM FREIEN GERMANIEN, by Hans Jürgen Eggers. Hamburg, Hamburgisches Museum für Völkerkunde und Vorgeschichte, 1951. Text vol., pp. 212; Plate vol., pls. 1-16, maps 1-64, folding map in pocket. 45.—D.M. (the folding map is available separately as Karte des römischen Imports im freien Germanien, 4.50 DM.).

This first volume of the series *Atlas der Urgeschichte* is written by the editor of the series, who is Curator of Prehistory in the Hamburgisches Museum für Völkerkunde und Vorgeschichte and also co-editor of *Archaeologia Geographica*, a quarterly (Hamburg, since 1950) devoted to the application of geographical-cartographical methods in the study of archaeology. The purpose of the *Atlas der Urgeschichte* is to publish comprehensive studies of individual archaeological periods over wide geographical areas; each volume is to contain an archaeological map at scale 1:2,000,000, an index of find-spots with list of finds at each, plates illustrating the typology of the finds, maps at scale 1:8,000,000 illustrating the distribution of the several types. The first four volumes of the *Atlas*, all to be the work of Dr. Eggers, are to deal with the period of the Roman empire in central and northern Europe and are to be divided as follows: (1) Der (keltische und) römische Import; (2) Die einheimischen Funde der Spätlatènezeit; (3) Die einheimischen Funde der älteren Kaiserzeit; (4) Die einheimischen Funde der jüngeren Kaiserzeit. The present work represents the first part of volume one; the remaining volumes are promised for the near future. The editor hopes that with the assistance of other scholars the scope of the *Atlas* can be widened so as to provide a picture of all the early historical cultures of Europe.

The volume under discussion deals with Celtic and Roman importations (except coins and glass beads) into central and northern Europe in the period 150 B.C. to A.D. 400. The geographical area involved coincides at the south with the northern boundary of the empire (Rhine-Limes-Danube); at the east it extends to the pre-1939 boundary between Poland and Russia; to the north it includes Scandinavia and Finland up to 65° north latitude. The large folding map (*Gesamtkarte*) shows by a variety of sigla the locations in which there have been found Roman imports of the following categories: silver vessels, bronze vessels, glass vessels, pottery, fibulae, weapons, statuettes. It shows likewise the principal Roman sites inside the Rhine-Limes-Danube line and all the known Roman sites beyond it in the area of the free Germans. Maps 60-64 show the distribution of the individual categories of imports (bronze, glass, pottery, statuettes, weapons), while maps 9-59 show distribution of some 250 different types of bronze, silver and glass vessels (the types are illustrated at 1/6 scale on plates 1-16). The purpose of this study is to establish distribution patterns by the means of maps 3-64 and from these patterns to draw conclusions regarding the trade, social customs and

political organization of the area. The relative chronology of the different objects has been determined and is indicated by letters as follows: period A, La Tène; period B, early Empire; C, late Empire; D, age of the barbarian migrations. Eggers gives the beginning of period A as ca. 150 B.C., the end of C as A.D. 400; he implies a date circa 30 B.C. for the end of A. There are no other indications of absolute chronology, which will be the subject of part two of this volume.

Many years of painstaking study lie behind this work. Much research had been done on the Roman imports of small districts within the general area and on specific types of objects over the whole area; some important general surveys had been undertaken by Ekholm (*Acta Archaeologica*, 1935) and Brogan (*JRS*, 1936). But Eggers' is the most comprehensive work to date. It opens with an analysis of the state of research up to 1951 (map 1) and a statement of the extent of the author's own contribution in surveying museum collections (map 2). Chapter Two is an interpretation of the *Gesamtkarte* and of maps 60-64 in relation to the goals of archaeological study. Eggers lists three levels of comprehension of a past culture. The third of these is that represented by modern recovery of remains (often incomplete for a given area and incompletely documented). The second level is that of recognition of limited or partial cultural characteristics (as settlement and burial practices) on the basis of the excavated remains; this is termed "die tote Kultur." The first level is that of interpretation of major cultural features (e.g., in this case, trade routes and extent of trade-relations, racial and political boundaries). It is this first level, "die lebende Kultur," which should be the goal of archaeological research, even though it can be reached with much less frequency than level two. The difficulties which lie in the way of achieving the level of "living culture" and some of the methods of interpretation which lead toward it are set forth in this chapter with special reference to the area and the material with which the book is concerned.

Chapters Three, Four and Five deal with periods A, B and C respectively. The utensils of bronze and glass which were in use in each period are discussed in relation to the distribution maps; from this discussion there emerge numerous significant conclusions regarding the chronological shifts in areas of trade, the location of trade routes, the probable origin of certain types of utensils, etc. These conclusions are summarized in Chapter Six, where they are followed by an analysis of the five major trade-routes serving free Germany: (1) from the Rhine mouth (Traiectum) by sea to the mouths of the Ems, Weser and Elbe, to Jutland and the coast of Norway; (2) from the mouth of the Lippe (Vetera) inland to the upper Elbe; (3) from Moguntiacum northeastward to Thuringia, via Fulda; (4a) from Carnuntum on the Danube north to the Oder and Baltic Sea through Prussia; (4b) from Carnuntum north to the upper Weichsel (Vistula) and thence through East Prussia to the Baltic (the amber route) and the coast of Sweden; (5) from the Black Sea via the Bug

or Dniester to the Weichsel and the Baltic. These routes, among others, have been recognized before; Eggers feels that his evidence justifies the limitation of the trade-routes to these five, of which 1, 4 and 5 were subject to the heaviest traffic.

The volume concludes with an excursus on chronology (relative) and on the literary sources for the history of Roman trade with free Germany. In the latter, attention should be called to an incomplete citation from Dio Cassius: the passage given in par. c, p. 73, should read *οἱ δὲ εἰρήνην αἰτοῦμενοι, ὥσπερ οἱ Κονάδοι* etc.

The vast number of deposits (individual finds, graves, hoards, German settlements, Roman camp-sites, etc.) available for study justify the author's claim to be able, in some matters at least, to reach the level of "living culture" in his interpretation. On pp. 78-158 is a list of 2257 deposits, each accompanied by a statement of the types of objects found, the present location of the objects, the pertinent bibliography. "Beilage" 1-112 (pp. 159-183) explain the distribution of the many types of metal and glass vessels and enumerate all deposits in which specimens have been found. At the end of the book are two indices to the grid of the folding map. The indexing and cross-referencing could hardly be improved upon.

The cartographical approach to archaeology is by no means new, but it is applied by Eggers on a much broader scale than heretofore. Brogan (*JRS* 26 [1936] 195ff.) made use of distribution maps but devoted only three to bronze vessels and one to glass, while Eggers employs forty maps for metal vessels and eleven for glass. From this greater abundance of cartographic material the author draws more far-reaching conclusions than his predecessors, but one wonders whether emphasis on cartography is not overdone. Maps 15, 26, 34, 37, 43, 50, 51, 53 and 55 represent metal or glass types each of which occurs in fewer than eight sporadically distributed examples; it seems unwise to draw conclusions from the sparse occurrence of these types and unnecessary to devote a single map to each. One serious lack, from the cartographic point of view, is the absence of a master map with geographical names indicated. The folding map (outline) and the distribution maps (relief contours shown by hatching) have no nomenclature and the reader often finds it necessary to refer to an atlas in order to locate accurately some of the lesser-known rivers and towns (ancient and modern) which are mentioned in the text.

Eggers' great contribution in this book is the thorough compilation of all pertinent deposits of Roman imports in the area of free Germany (with an extensive bibliography of 324 items) and the typological study made possible by the distribution maps. Archaeologists and historians will welcome the second part of *Der römische Import*; in this the author promises his absolute chronology, a study of the places of origin of the numerous bronze and glass vessels and a discussion of terra-sigillata, which is only briefly handled in the present volume. Fibulae (mostly of German manufacture) are to be discussed in volumes two, three and

four. It is to be hoped that in part two of volume one there can be some indication of the distribution into other areas of the major vessel-types that occur in free Germany.

HENRY S. ROBINSON

UNIVERSITY OF OKLAHOMA

THE EXCAVATIONS AT DURA-EUROPOS CONDUCTED BY YALE UNIVERSITY AND THE FRENCH ACADEMY OF INSCRIPTIONS AND LETTERS. PRELIMINARY REPORT OF THE NINTH SEASON OF WORK, 1935-1936. Edited by M. I. Rostovtzeff, A. R. Bellinger, F. E. Brown and C. B. Welles. Part III, The Palace of the *Dux Ripae* and the Dolicheneum. Pp. xvi + 134, pls. 24, figs. 11. New Haven, Yale University Press, 1952. \$5.00.

The two buildings which are here published lie adjacent to one another in the northern quarter of the city of Dura, east of the area of the Roman camp. They were excavated in 1935-1936 but were previously known only through references in Rostovtzeff's *Dura-Europos and its Art* (1938). Both structures, erected during the last half-century of Dura's existence, are of considerable interest. The palace, built circa A.D. 218-222, overlooked the Euphrates from a cliff about 120 feet above the river and consisted of three distinct areas: an outer peristyle court which may have served military and civil functions (reviews of troops, tribunal of the *dux*); an inner peristyle court surrounded by public reception and dining rooms, store-rooms, slave quarters, latrine; and the "portico villa," facing the river, which served as private quarters for the official in residence. Part of the last-named unit has fallen away into the river bed and the full plan cannot be recovered; its most imposing room was a dining hall with vaulted ceiling and an apse covered by a half dome. Dipinti on the walls of room 7 of the "portico villa" refer to a *dux ripae*, identified by the editors as the military commander of the Euphrates *limes*; the *dux* was independent of the commander of the local garrison, whose headquarters were in the *praetorium*, which lies to the west of the palace. The known military and civil functions of the *dux ripae* are appropriate to the type of structure represented in the so-called "palace" and it is logical to associate the building with the office. Solidly and carefully constructed of mud bricks laid in mud mortar, the two peristyles and portico, with some fifty rooms, are arranged on a single axis which is at right angles to the city wall where it follows the course of the river bed at the north of the site. A few of the rooms were decorated with painted panels on the walls; more had painted ornament on the ceilings, some of which were flat while others were false vaults, suspended from horizontal roofing beams by ropes embedded in the plaster. Most of the area covered by the palace was cleared for its construction, but along its west side there are traces

of earlier buildings, one identified as a bath, with orientation approximating that of the old city-street plan.

The Dolicheneum, built circa A.D. 211, is smaller and less carefully constructed and was erected probably at the expense of the soldiers of the legionary *vexillationes* stationed at Dura. Adjacent to, but earlier in date than, the palace of the *dux*, the Dolicheneum has an orientation different from that of the palace and seems to have no integral relationship with it. An irregularly shaped courtyard gives access to a pair of cellae which are associated, on the basis of inscribed altars, with Jupiter Optimus Maximus Dolichenus and Turmasgade. Other altars and inscriptions show that additional deities received honor here: Zeus Helios Mithras, Jupiter Optimus Maximus Heliopolitanus, a goddess referred to as ἡ κυρία, and possibly the Palmyrene god Iarhibol. Two rooms of the complex about the court contain benches and were apparently *triclinia*. Such religious banquet rooms are a common feature in Syrian and Mesopotamian towns; parallels of both religious and civic nature are to be found at points farther west in the Greek world (cf. *Hesperia* 23 [1954] 43-45).

The epigraphical remains from these two buildings are published as nos. 944-988, thus taking their proper place in the continuous numerical listing of Dura inscriptions published in the several seasonal reports. Of special significance are those which give the names of legions and *vexillationes* which were stationed at Dura in the 3rd century, and of their officers; others throw considerable light on the *dux ripae* and his retinue (including professional actors and *venatores*). Inscriptions (dipinti) 945-949, all from the walls of room 7 of the residential quarter of the palace, represent acclamations characterized by such imperative forms as *μηροθῆ, εὐρύχευ* and *χαίρει*. The texts memorialize certain persons by their proper names and others by the general terms *ὁ γράψας, ὁ ἀναγεινώσκων, ὁ ὅδε μένων*. As to the meaning of the first and second of these terms there can be no doubt—"the writer" and "whoever [happens to] read [this]"; the third, translated with some hesitancy by the editors (Rostovtzeff and Welles) as "the one remaining here" (p. 35) surely means "whoever [happens to] reside here." The term *χαίρει*, probably an imperative equivalent to *χαίρε*, is explained by the editors on the analogy of the *χαίρειν* of letter headings (p. 34); it would be pertinent to cite also in this connection the convivial text *χαίρε π[ί]αι* (i.e. *χαίρε, π[ί]ε*) painted on a drinking cup of the late third century in Athens (unpublished, from the Agora Excavations, Inv. P 13054; note also, as a parallel to the *εὐρύχευ* of Dura 946-948, the dipinto *εὐρύχε* on a similar jug from the same excavations, P 13070). The purpose of such convivial texts was, as in the case of the acclamations, to express good wishes; *χαίρε, π[ί]ε* might be said to be the equivalent of *χαίρε ὁ πίνων*, with which compare *χαίρει . . . ὁ ἀναγεινώσκων* of Dura inscription 948.

Of minor objects, few are recorded, the handsomest being a gold fibula set with intaglio gem representing Narcissus; the Dolicheneum, as was to be expected,

produced figures of eagles, two in bronze and two in alabaster.

Certain omissions and confusions are the result of the two handicaps of multiple authorship and the inability of the several authors to verify details at the site; both handicaps are due to the dislocations of the war years. Three points seem worthy of comment. There is no grid plan in the volume to explain the designations used in reference to buildings in other parts of the city (as on pp. 69-70), nor do the footnotes refer to the presence of such a plan in earlier reports. In the description of the palace of the *dux*, the axis of which lies some 20° east of north, the principal faces of the structure are termed southwest, northeast, etc. Such nomenclature tends to confuse the reader who is accustomed to identifying as the north wall of a structure that which lies closest to compass-north. The confusion is rendered even greater when, in the description of the Dolicheneum, its faces are identified with the four major compass points, even though its axis lies 25° west of north. Finally, although it is never possible to satisfy all readers in the matter of architectural terminology, it does seem preferable, when one is describing steps and stairs, to use the terms "depth of tread" and "height of riser" rather than merely "width" and "height," especially when the term "wide" is being employed to describe the passage-way in which the steps are constructed (p. 100).

The text of this volume is admirably clear and concise; the illustrations are abundant and well reproduced. Particularly valuable are the excellent perspective reconstruction of the palace (fig. 2; with which compare another reconstruction, not referred to in the present volume, in Rostovtzeff's *Dura-Europos and its Art*, pl. X) and the reconstructed sections of the Dolicheneum (fig. 11). The editors are to be congratulated on another notable addition to the rapidly growing picture of Dura, one of the most fascinating of eastern Roman cities.

HENRY S. ROBINSON

UNIVERSITY OF OKLAHOMA

MINISTERO DELLA PUBBLICA ISTRUZIONE. CATALOGHI DEI MUSEI E GALLERIE D'ITALIA. MUSEO NAZIONALE ROMANO. I RITRATTI, by Bianca Maria Felletti Maj. Pp. 171, figs. 329. La Libreria dello Stato, Rome, 1953. Lire 5000.

The last two decades have produced a number of studies of Greek and Roman portraiture and iconography of a limited or personal nature. These works, whether dealing with the Roman Republic or the Late Antique, have been collections of material based on an individual scholar's selection, usually to propound a theory or show a development in the history of art. This latest offering of a distinguished Italian scholar is a museum catalogue in the old tradition which admirably cements the background to numerous individual studies on an international level.

We now have a catalogue of the portrait material housed in the Museo Nazionale Romano and the Baths of Diocletian that both documents well-known pieces and presents these in conjunction with little-known material united in the same collections.

The author's catalogue will quite naturally draw comparison with the great pre-war effort at presentation of the contents of a Roman museum that is Domenico Mustilli's monumental *Il Museo Mussolini*. Printing and publication costs—the passing of autocratic patronage—have made the present volume more modest in format but perhaps superior in its simple clarity of presentation. Unlike Mustilli's work, a simple number system for individual items and illustrations alike is employed throughout, making *I Ritratti* extremely easy to use. The comparative standard of the catalogue as a whole is somewhat affected by a multitude of minor mechanical errors, in citation of abbreviations and spelling of proper or personal names, which tend to detract from the methodical presentation of over 350 portraits and their sometimes extremely complex bibliographies. A sampling of these errors will be treated in detail below.

A concise preface states that the present catalogue comprises the sculptured portraits of the Museo Nazionale Romano in marble, stone, and terracotta, exclusive of those on historical and funerary reliefs, stelae, and sarcophagi, all of which will form part of another volume in this series. The order tends to the chronological, with copies treated in place of originals, and with Roman portraits of ladies arranged in groups after their male chronological counterparts. Catalogue nos. 330-347 are portraits in a poor state of preservation or unfinished. None of these are illustrated. An Appendix treats portraits which are of interest in spite of their doubtful authenticity. Both works destined for exhibition and those stored in the magazines appear; the portraits from the Boncompagni-Ludovisi collection now in the Museo Nazionale are scattered in their proper places throughout the catalogue and appendix.

Each entry following the catalogue number, title of the work, and museum inventory contains material, measurements, a detailed description of restorations, and an indication of provenance. The main body of the text is the author's summary of past opinion on pieces well known and otherwise, with introduction of the proper comparative references. In the case of works such as the famed bronze "Hellenistic Prince" or "Ruler" (no. 35), this is a major task. Side by side with the familiar items are portraits reproduced here for the first time. Bibliographies of published references to the piece catalogued and a convenient list of Alinari, Anderson and like photographic records close the entries.

To make a positive, unified contribution to the material covered in this volume the present reviewer offers a few notes on portraits in and from collections in the British Isles which have been cited for comparison with Museo Nazionale Romano examples. The "Sappho" at Wilton House (Felletti Maj, p. 13, no. 5, ex. 9; also Michaelis, *Anc. Marbles*, p. 696, no. 128) is Renaissance work and is now stored in the stables.

Another unpublished (?) antique replica in Parian marble was at one time lent to the Art Institute of Chicago (acc. no. 30642; photo no. C5919); the neck is gone and the tip of the nose restored. Under p. 18, no. 17, the head of a Diadochos is still in its setting in the redecorated Stone Hall of Lord Cholmondeley's Norfolk seat, Houghton Hall. As regards pp. 20f., no. 21, F. Poulsen (*PECH*, pp. 36f., no. 8) seemed glad to accept the antiquity of the "Double Herm of Two Greek Poets" at Wilton House, although the beardless "Menander" is neither the same person as at Bonn nor seemingly as in the Terme herm. Under pp. 24f., no. 30, the "Eumenes II" at Margam Park (see also Suhr, p. 172) was sold to a Mr. Harper for £70 as Lot 437 (confused with Michaelis no. 9, Lot 440) in the Christie's sale conducted on the premises 29 October 1941. The entire collection of sculpture, as well as the remaining contents of the castle, were dispersed at that time. Pp. 49f., no. 76, Ince Blundell, Michaelis-Ashmole no. 100 appears more recently as Schweitzer, p. 40, A. 1. The Wilton Antonia Minor (under pp. 54f., no. 85 and pp. 69f., no. 118) has in the group kindred to it Kaschnitz-Weinberg, p. 264, no. 616. Under pp. 61f., no. 100, Lansdowne House, Michaelis-Smith no. 48, Poulsen, *PECH*, no. 34, seems to have been these many years in the Ny Carlsberg Glyptotek and is now no. 599a in F. Poulsen's recent *Catalogue*. Rossie Priory, Michaelis-Kinnaird no. 29 (Felletti Maj, p. 78, no. 138) was sold as half of Lot 209 in the liquidation of part of Lord Kinnaird's marbles at Sotheby's, London, 20 and 21 December 1948. In treating the statuary type to which head no. 179, p. 96, is attached, we seem led to believe there are two other replicas in Major E. R. F. Compton's collection at Newby Hall, Yorkshire. Actually, as Michaelis no. 18 indicates, Clarac published two drawings of the same seated Muse. The Lansdowne House heroic statue with head of Marcus Aurelius (p. 106, under no. 204) is still at the time of writing the property of Lord Lansdowne, but now at Bowood in Wiltshire. There has always been some question whether the head belongs to this or a companion statue.

In connection with the Hadrianic old man at Holkham Hall (p. 108, under no. 208), we also note parallel treatment of the hair in an example in the Vatican (Kaschnitz-Weinberg, p. 280, no. 672). The Syon House Marcus Aurelius cited on p. 116, under no. 227, is Poulsen, *PECH*, no. 87, not no. 94, fig. 87. For the *femina orans* pp. 120f., no. 237, J. H. Jongkees' restudy of the replicas (*JHS* 68 [1948] 29ff.), thirteen in all, with the Terme example as no. 2 and that at Syon House as no. 8, has led him to identify the prototype with a statue of Mausolus' sister, Ada, placed perhaps on the north side of the Mausoleum and perhaps one of a series of figures by Bryaxis. The Wilton House colossal head of the young Caracalla (p. 129, no. 17 in the list under no. 254) is still in Lord Pembroke's collection but has also been relegated to storage in a box stall of the stables. Under no. 257, pp. 130f., the Julia Domna, no. 11 in the list, is in the Ante Room to the Picture Gallery at Houghton Hall; its latest discussion is by Miss Harrison, *Agora* I, p.

46, note 1. The bust mentioned under no. 266, pp. 134f., as at Holkham Hall appears to be Michaelis no. 38 (not to be confused with no. 32 = Poulsen, *PECH*, no. 101) and still in the house, although Poulsen did not find it worthy of publication. The reviewer agrees that Wilton House, Poulsen, *PECH*, no. 105, is hardly a portrait of Maximinus Thrax even in his least pronounced moments; there was nothing "pathetic" about this emperor. The Rossie Priory Otacilia Severa (no. 4 in the list on pp. 143f., under no. 285) was part of Lot 213 in the same auction mentioned above. The Philippus II at Ince Blundell (under no. 293, p. 147; Ashmole, no. 298) has been related by L'Orange (*Spätantike Porträts*, pp. 94f.) to the youthful portraits of Alexander Severus. Finally, Petworth no. 51 (cited in comparison with the heroized child on horseback, pp. 149f., no. 298), which is always identified as Saloninus, has been taken for Valerianus II by A. Wotschitzky (*JOAI* [1952] 128ff.), while Saloninus is seen in the Innsbruck bust.

We cannot help wondering if all the difficulties in connection with no. 320, pp. 160f., would not be resolved if this colossal head were seen as a fourth-century portrait of Nero, the large-scale parallel to his frequent appearance in the contorniate series with emperors such as Trajan and Caracalla. There even seems to be a photographic affinity with the well-known Nero of shortly before A.D. 64 (no. 123, p. 73).

As indicated, slips in proofreading and inconsistencies in citation give the work with its sound scholarship a deceiving appearance of haste and superficiality. All of these could have been avoided with a minimum of care on the part of the publishers rather than the cataloguer. Any publication presented under such august sponsorship as the Ministry of Public Instruction could surely be read by at least one or two of the many foreign scholars in Rome willing to lend their linguistic talents to such enterprises. On p. 5, in the abbreviations, we encounter *BMCE*, for *British Museum Catalogue, Empire* (coins?—there are many British Museum catalogues), but on p. 66 we find the *Coins of the Roman Empire in the British Museum* cited as Mattingly, I and on p. 100 as Mattingly, III. (There are many books by Mr. Mattingly, including Mattingly and Sydenham, *The Roman Imperial Coinage*, a work quite similar to Mattingly's *British Museum Catalogues*; M. and S., *R.I.C.*, is itself cited on p. 131 as Mattingly-Sydenham.) P. 7, Kollwitz and Kolwitz on the same line, and on p. 163 he appears as Kollvitz. P. 6 has *Journal Hellenic Studies* and Chase, *Greek a. Roman* . . . , also p. 7, *Greek for Greek*. On p. 18, read Poulsen, *PECH*, for just Poulsen, and presumably V. H. Poulsen is meant by H. Poulsen on p. 54. P. 19 has Petwort for Petworth and Ashmoleum for Ashmolean; Petwort also occurs twice on p. 128. Margan appears for Margam Park on p. 25, Houghton House for Houghton Hall on p. 131, and we meet Landowne House on p. 62. Rossy Priory (p. 78) is possible for Rossie Priory, but not the Rossi of p. 144. William Weddell of Newby Hall emerges as Weddel on p. 96. We note Walters Arte Gallery on p. 148.

The proofreaders had more trouble with German

names than those of the British gentry and their country seats. Examples include Düthcke (p. 46), Bernolli (p. 83), Lehemann (p. 139), and Gütschov (p. 139). The abbreviated citation of Bernoulli's coin plates proved an insurmountable obstacle: pp. 117, 130, 155, 161 have *Münzt.*; pp. 123, 139 have the same not italicized; pp. 54, 147 have *Münztav.*; pp. 144, 145 feature *Münztaf.*; and also on p. 144 occurs *Münztaf.* P. 126 has Strong, *Roman Sculptur*, p. 120 *autoninische Statuenstützen* and also *Antike Porphywerke*, p. 29 Rhis Carpenter, and p. 119 Nybbi for Nibby. The difficulty was not entirely in non-Italian names: *vide*, p. 142, Musso Torlonia! The system of italicization for title or abbreviation produces a number of minor irregularities: e.g. p. 138 *Antike Plastik*, p. 159 L'Orange, *Apotheosis* (whereas, p. 157 L'Orange, *Kat.*, or p. 164, L'Orange, *cat.*, is but a part of L'Orange, which stands for L'Orange's *Studien* . . .), p. 121 Diepolder, *Attischer Grabreliefs*, and p. 145 where Delbrueck's *Münzbildn.* is italicized while it is not in the list of abbreviations on p. 6. This list (pp. 5-8) produces many more irregularities in citation of authors' names, titles, and places of publication than it is the scope of this review to cite.

To many the foregoing criticisms may seem trivial, but since a museum catalogue is designed to be a harmonious balance between scholarship as well as mechanics, the machinery must be in top order before the full value of the scholarship can be utilized. Mechanical errors in a basic catalogue tend to be perpetuated all too easily when that reference is used. A reprinting of this standard work will no doubt take place before many years pass, and such an event will afford an opportunity to make minor adjustments in what is otherwise a model of straight-forward cataloguing of a vast amount of vital material.

CORNELIUS VERMEULE

UNIVERSITY OF MICHIGAN

ANTIOCH-ON-THE-ORONTES, IV, PART II. GREEK, ROMAN, BYZANTINE AND CRUSADER COINS, by Dorothy B. Waagé (Publications of the Committee for the Excavation of Antioch and Its Vicinity). Pp. xii + 187, Pls. viii. Published for the Committee by the Department of Art and Archaeology of Princeton University, Princeton University Press, Princeton, 1952. \$25.00.

It is always difficult when reviewing a catalogue of excavation coins to determine exactly how deeply one should probe. The simple purpose of the compiler of such a catalogue is to present a large body of new data in as logical, complete and yet succinct a fashion as possible. In this Mrs. Waagé has been eminently successful. The publication of the excavation coins from the ancient city of Antioch and its vicinity and Seleucia Pieria has been accomplished in good fashion. Mrs. Waagé has published all of the legible Greek, Roman, Byzantine and Crusader coins, together with

one Axumite piece and two Muslim imitations of Crusader pieces, found at the excavations during the years 1932-1939. She has wisely included those coins which were recovered during the first season even though Mr. Shirley Weber had already published them in *Antioch, I*.

All of the coins found during the course of the excavations, and there were some 14,486 of them, were classified as chance finds. It is true that ten Ptolemaic tetradrachms were found together with one of Antigonos Monophthalmus and one of Demetrius Poliorcetes, but since they were not enclosed within a container they could not properly be considered a hoard. In view of such circumstances it is not surprising that only one gilt coin, a *tremissis* of Anastasius (no. 2064), and no true gold coins were found. Silver coins as a group were also not too plentiful, and in the case of the *denarii* the majority of the coins were of the plated variety. Numbers of these *denarii* have had all of the silver worn off in the course of time.

There are certain very small points in which the book might have been improved. The legible Semitic inscriptions on the few coins bearing them should have been reproduced, and the one coin attributed to the Latin Emperors of Byzantium (no. 2307) should have been recognized as an anonymous bronze piece of the Byzantine Emperors. It was probably struck by Nicephorus III, Botaniates. There are, however, very few instances in which the author might be justifiably criticized in her preparation of this volume.

The book does provide new information and some corrections to a number of earlier writers such as Wroth (see no. 2063, note) and Alföldi (see no. 1252, note). The evidence derived from such a large number of coins of known provenience will aid in establishing the mints which struck certain series. Mrs. Waagé has done some good work of this sort in her notes. The volume is an important one in the series of excavation reports from Antioch, and it should aid immeasurably in studying the economic history of that region.

HOWARD L. ADELSON

AMERICAN NUMISMATIC SOCIETY

ROMAN IMPERIAL MONEY, by Michael Grant. Pp. vii + 324, pls. 40. Thomas Nelson and Sons, Ltd., London, 1954. £2.10.0.

This latest work from the pen of Professor Grant, as the preface clearly indicates, is not designed for the numismatic specialist. Its purpose is to demonstrate the usefulness of numismatics to those whose interests lie in other fields of the study of the Roman Empire. By a close study of certain features of the coinage of the Roman Empire from the last days of the Republic to the close of the third century Professor Grant has indicated some of the avenues which he considers fruitful for further research involving the coinage.

In fact, however, it seems that the bulk of the material included in this new work is derived from Professor Grant's more detailed scholarly treatises on Roman coinage. The book may therefore be said to share

in both the merits and faults of his previous works. This is particularly true with regard to the topics covered in this book which center about Augustus, Tiberius, and the personifications on the coins, as well as the so-called anniversary issues. Professor Grant's views, as set forth in his more detailed works, have not found ready acceptance among numismatists and a high degree of caution and scepticism on the part of those who are not specialists in this field would be well advised.

In one chapter of this work Professor Grant presents a new hypothesis to explain the very intriguing series of imperial countermarks found on the base metal coins. He suggests tentatively the view that these countermarks of the Julio-Claudian period were of a religious, commemorative nature, but it must be said that his argument is not completely convincing. It seems rather like a perversion of the normal economic functions which are assigned to countermarks. Commemorative countermarks, as they have been described by Professor Grant, could hardly have served to extend the circulation of individual coins either geographically or in time. Also the very abbreviated inscriptions contained within the countermarks lack the clarity which should, in the very nature of things, be implicit in commemorative pieces. This same difficulty is found in the sections on personifications and anniversary issues. The exact detail on a coin type is not what strikes the average man. Some of the allusions which Professor Grant sees are so broad as to be meaningless or even to have caused confusion of meaning. Recondite references which were not explained could hardly have been suitable for government propaganda.

The two chapters of this book devoted to the decline of the imperial coinage owe much to the work of L. C. West, and the chapter concerned with the "Forerunners of Medallions" is largely dependent upon the studies in that field prepared by Professor J. M. C. Toynbee. Unfortunately, in his discussion of the decline of the weight and fineness of the base metal token coinages of the Empire, Professor Grant diverges somewhat from West's clearly expressed position. Mr. West has pointed out quite correctly that the metallic content of token coinages is not in itself a factor of great economic importance, but that if the quantity of such fiduciary coinage in circulation was greatly increased then real doubts might arise as to its convertibility into coins of full bullion value with a consequent inflationary price rise. Insistence on the importance of changes of fineness and weight without taking this into account in the case of token coinages is not a strong position.

Individual scholars will undoubtedly argue in greater detail against many other features of this book, but as one of the more detailed works introducing people to some of the contributions of numismatics it should serve its purpose. If this volume excites greater interest in the coinage of the Empire, and if the results of this interest are felt in allied fields, the book will have performed a valuable function.

HOWARD L. ADELSON

THE AMERICAN NUMISMATIC SOCIETY

THE ATHENIAN AGORA. RESULTS OF EXCAVATIONS CONDUCTED BY THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS, VOL. II. COINS FROM THE ROMAN THROUGH THE VENETIAN PERIOD, by Margaret Thompson. Pp. viii + 122, pls. 4. The American School of Classical Studies at Athens, Princeton, New Jersey, 1954. \$5.00.

Miss Thompson was given the rather unenviable task of preparing a catalogue of approximately 37,000 coins from the 55,492 that were recovered in the Agora from 1931 to 1949, and range in time from the last century of the Roman Republic to the declining years of the Republic of Venice. Since the excavation of the Agora has not yet been completed, it is certain that more coins will be unearthed, but the nature of the remaining work makes it unlikely that any important revisions of the findings set forth in this catalogue will be necessary.

Publishing the bulk of this coinage so quickly has the merit of making this material readily available for scholars working on the Agora at a time when it can be most useful to them. Not all of the readings of the coin inscriptions and the descriptions of the types have been confirmed, for Miss Thompson has used the card file of the finds at the Institute for Advanced Study in Princeton as her primary tool. The work, however, has apparently been done with great care, and the author has had the benefit of the time she spent with the actual coins in Athens.

Even so, there are some few particulars in which this work might have been improved. There were very few coin hoards recovered in the course of the excavations, but their contents have not been noted in this catalogue. The coins from the hoards are confounded with the mass of the coinage from individual finds and are completely indistinguishable. This, of course, detracts somewhat from the usefulness of the volume and makes separate publication of the hoards necessary before any work on their economic or numismatic significance can be begun. Some simple method might have been devised to indicate which coins in the catalogue came from hoards, and the commentary might have supplied other information in brief on the exact location and nature of the hoard. A listing of the monograms appearing on the so-called Vandalic currency might also have proved very helpful to the specialist.

The notes which Miss Thompson has appended to the catalogue cover a wide variety of numismatic subjects and are most valuable. The section devoted to the small crude pieces which are known as "Vandalic" contains an excellent statement of the problem. A great deal of work still remains to be done of this *minimi*, and since the excavations at Athens have revealed some pieces which are not well known, if not unpublished, a fuller description would have been welcome. Additional information on the anonymous Byzantine bronze coinage is also presented in very fine fashion in the catalogue. Since Bellinger's pioneer work on these coins a good deal of progress has been made. The ex-

cavations in the Agora yielded 2,235 such coins and 14 imitations. The numerous restrikes provide vital information.

A catalogue containing such a large number of coins in some of the crucial series is of the greatest importance. It has been well prepared by Miss Thompson despite all of the obstacles which face a numismatist working with bronze coins from an excavation site.

JUDAH ADELSON

THE CITY COLLEGE OF NEW YORK

ASPECTS OF THE PRINCIPATE OF TIBERIUS, by Michael Grant (Numismatic Notes and Monographs, No. 116). Pp. xviii + 199, pls. viii. The American Numismatic Society, New York, 1950. \$5.00.

There has been much written, especially in the last decade, upon the principate of Tiberius. Mr. Grant in this present work on the same subject does not present a comprehensive survey, but calls attention to the numismatic evidence that must eventually be taken into consideration by the author of any serious and comprehensive estimate of this *princeps*. Numismatics will not describe the principate *wie es eigentlich gewesen*, but it will be helpful in telling us how Tiberius wanted things to be seen.

Mr. Grant has confined his study to a discussion of only the non-Spanish *coloniae*. The coinages of the *municipia* outside of Spain are not considered because their issues are so few, and they possess certain peculiar problems. Chapter one contains a list and a discussion of all the non-Spanish coinages. There is also a section in this same chapter on the metrology of the coins, but the scanty data available make the conclusions questionable. The second and third chapters are of much more general interest. They contain discussions of Tiberius as *princeps* and the family of Tiberius.

From the coinage of Tiberius we learn that he preferred names and titles that would not link him with any *imperium* or formal *potestas*. Mr. Grant shows that the word *imperium* did not play a prominent part in the official presentation of the régime of Tiberius any more than it had in the previous reign. The view is put forth that this was done so as not to suggest any rivalry with his most illustrious predecessor, Augustus. Tiberius, like Augustus, permitted the African colonies to honor his friends. This honor was in the first instance by means of portrayal. Thus the proconsuls of Africa were linked to Tiberius by a bond of *amicitia*. The coins give no information regarding their official relationship to Tiberius. Concerning this official relationship between Tiberius and the senior proconsuls, the author holds that they governed and fought under the auspices of Tiberius. These auspices, however, were not linked with the *imperium* but with the religious ideas represented by the name "Augustus" and its *auctoritas* quality.

The general conclusion of Mr. Grant is that Ti-

berius did not make many changes, in certain fields, from the preceding principate, but that he maintained the existing conditions. He was much more conservative in honoring his heirs than was Augustus, and he may even be accused of introducing a Republican reaction. The last of the true *principes*, he is pictured as cramped by his character and inheritance, and so he doomed to failure the system that he desired most to maintain.

Mr. Grant has shown most conclusively that any thorough survey of the principate of Tiberius must consider and evaluate the numismatic evidence if it makes any pretense at being complete. The coins, according to Mr. Grant, show a clear continuance of policy from the latter years of the principate of Augustus into the early years of the principate of Tiberius.

The book is very well written and contains many excellent illustrations of the coins of the principate of Tiberius. There is a very good general index and two fine indices of persons and places.

JUDAH ADELSON

THE CITY COLLEGE OF NEW YORK

BARBARIANS ON ROMAN IMPERIAL COINS AND SCULPTURE, by *Annalina Caló Levi* (Numismatic Notes and Monographs, No. 123). Pp. xi + 56, pls. XVII. The American Numismatic Society, New York, 1952. \$3.50.

There have been many studies concerned with Roman imperial art which also give consideration to its numismatic aspects. That certain coin types have been influenced by official reliefs, statues, and paintings is no longer in doubt. The question is the extent of the influence of art on numismatics. The present work is an application of Lehmann's theory, that new coin types reflect a slightly earlier work of official art. Mrs. Levi confines her study to the influence of official sculpture on new coin types as demonstrated by a comparative study of several motifs as they appear both on coins and in sculpture during the entire imperial period. The author seeks to examine the acceptability of the theory for the entire imperial period and tries to determine whether or not a repetition of the same coin type is to be regarded as simply a copy of the more ancient numismatic representation.

Mrs. Levi chose her specific subject, the barbarian motif on coins and its relation to official sculpture, because there is a complete series of coin types expressing that motif extending from the reign of Augustus into the fourth century. The provincial and local coinages were excluded from consideration because of their peculiar problems. The book is divided into three parts, the first of which considers the period from Augustus through Marcus Aurelius and Lucius Verus. This is the most detailed section of a generally weak book. New types of coins with barbarians and their relationship to sculpture are here discussed. The author grants that sculpture does not offer a complete

series of dated monuments, and that some of the sculpture used as supporting evidence is not extant. Thus, she is relying on statements of their being extant at one time, and upon descriptions of those sculptures, the accuracy of which is always open to question.

The *denarii* of 18 B.C. which portray on the reverse a kneeling Parthian holding the Roman standard (Pl. I, 3) are, for example, connected with the arch of Augustus. This Augustan arch, however, is not extant, and so the author relies upon the two triple arches at Pisidian Antioch which supposedly resemble the Augustan arch. It is possible that the triple arch of Asper was not modelled after the Augustan arch, but rather after the arch near the temple of *Divus Julius* in Rome. In addition, the figures on the Pisidian Antioch arch are differently posed. Mrs. Levi makes constant use of such weak evidence in support of her thesis.

While Lehmann's theory may have some basis in fact, Mrs. Levi's attempted application of it to the realm of sculpture is not sustained by the facts she has produced. She has, however, chosen a difficult thesis and one which is not readily susceptible of proof. Lehmann's theory will continue to stimulate students of art and archaeology to further work in numismatics, and it is to be hoped that the results of this work may be more conclusive.

JUDAH ADELSON

THE CITY COLLEGE OF NEW YORK

DER KAISERORNAT FRIEDRICHS II, by *Josef Deér*. (Dissertationes Bernenses Historiam Orbis Antiqui Medii Aevi Elucubrant. Edendas Curavit A. Alföldi. Ser. II, Fasc. 2) Pp. 88, pls. 38. A. Francke, Bern, 1952. 44 Sw. fr.

This is an illuminating and articulate study of the insignia and vestments of the Emperor Frederick II. The basis of the argument is the refutation of the thesis, commonly held, that the crown found in the tomb of Frederick's first wife, Constance of Aragon, who died in 1222, is that of the empress. The crown was removed from Constance's sarcophagus in 1781 and is now in the Cathedral Treasury in Palermo.

Professor Deér demonstrates that the crown is not that of an empress or queen, which would have been of open form in either the Byzantine or German traditions, but is the type used by the Byzantine emperors, known as the *kamelaukion*. The prototypes for such crowns are found in late classical helmets, and they may be distinguished by their closed, domical form with two applied, intersecting arches.

From each side of the Palermo crown hang earring-like pendants, usually interpreted as further evidence of the feminine character of the crown. These complex adornments, constructed of gold spheres and enamelled bands joined by tiny chains, are convincingly shown to develop from the similarly designed fibulae used to fasten the imperial chlamys in late antiquity;

and are, therefore, additional proof of the imperial connotations of the crown.

Deér finds the explanation for the final disposition of this magnificent crown in the personality of Frederick himself. For Frederick is known to have placed one of his crowns in the tomb of St. Elizabeth of Hungary at Marburg in 1236. The author hypothesizes logically that the emperor may have placed another crown in the tomb of his first wife, and that it was probably the one used in Frederick's coronation at Rome in 1220.

An excellent series of comparisons with vestments and filigree and enamel work of known Sicilian origin, such as the appliqué on the Vienna coronation cope in the Weltliche Schatzkammer shows the crown to be demonstrably Sicilian in workmanship and closely related to the costume and pectoral of Constance herself. Deér further relates the ceremonial sword and gloves in the Vienna Weltliche Schatzkammer, both on a basis of workmanship and emblematic representation, and proposes that together with the crown they formed a single ensemble of Hohenstaufen origin used at the coronations in Rome.

The useful arrangement of the plates should be highly commended. The author has had entire illustrations and important details repeated throughout the plates, so that their immediate juxtapositions facilitate comparisons.

RICHARD H. RANDALL, JR.

THE METROPOLITAN MUSEUM OF ART

HEINRICH SCHLIEMANN: BRIEFWECHSEL; AUS DEM NACHLASS IN AUSWAHL HERAUSGEGEBEN, von Ernst Meyer. I. Band: von 1842 bis 1875. Pp. 382, pls. 21. Berlin, Verlag Gebr. Mann, 1953.

Out of the sixty thousand or so letters by or to Schliemann on deposit in the Gennadius Library in Athens, Dr. Meyer has selected for publication in this volume two hundred and seventy-six, which cover the period of his early business career in Amsterdam, St. Petersburg, and Sacramento to his archaeological enterprises in the Plain of Troy. The letters published are in German, English, French, Italian, Latin, and Greek, with translations provided for the latter three languages.

The Trojan letters were written in the heat of archaeological enthusiasm over the discovery of the authentic site of Homer's Troy, and in no way reflect Schliemann as the greedy gold-digger he has been sometimes pictured. Of especial interest is the account of the removal, in July 1874, at Schliemann's expense of the Frankish Tower near the Propylaea. At the end has been added as a supplement, taken from the journals, accounts of the great fire at San Francisco, June 4, 1851 (unaccompanied by earthquake), and another fire at Sacramento, Nov. 2, 1852, which wiped out that city. He comments admiringly on the tremendous

optimism and energy of the citizens in rebuilding their cities.

SHIRLEY HOWARD WEBER

PRINCETON, N.J.

ORIGINS, by Hannah M. Wormington. Instituto Panamericano de Geografía e Historia, Publicación Num. 153. Pp. 110. Mexico, D.F., 1953.

This booklet is number one in an historical series planned eventually to reach eighteen volumes, summarizing the native, colonial, and national histories of the Americas, financed by the Rockefeller Foundation. Such an ambitious undertaking might seem quite incapable of proper accomplishment, for the booklets are of pocket size, thin, and waste a good deal of space in having outlines and bibliographies for each short chapter. Yet to judge from *Origins* and the other volumes so far published, the quality of the information offered in each of them is exceptionally high. They will undoubtedly prove to be useful, authoritative summaries of present knowledge in each field of study and area covered, particularly for teachers of anthropology and history. Probably many of them will be useful as student texts as well, being brief, to the point, and inexpensive.

Miss Wormington's subject, besides opening the history of the New World with a study of its oldest known cultures and physical remains, is by far the most comprehensive, and accordingly the most difficult to mold into such limited space. It includes definitions of geological terms for the late Pleistocene and Holocene climatic stages; a review of the many methods of dating now in use; a brief review of theories as to routes and times of earliest human migrations to America; a recapitulation of the major sites, artifacts, and physical remains bearing on the earliest inhabitants over both South and North America; a discussion of the theories of a dozen anthropologists on the physical and linguistic stocks involved in the peopling of America; a review of some ideas on the New World or Old World origin of certain domesticated plants (the evidence itself is not cited—this is vastly complicated and should be done by botanists anyway); and, finally, a brief discussion of trans-Pacific cultural comparisons from Nordenskiöld in 1933 to Heine-Geldern and Ekholm in 1950-51. Considering that even the knottiest problems are seldom given more than a paragraph apiece—if that much—Miss Wormington has managed to pack a very respectable amount of information and opinion into *Origins*.

There are, on the other hand, certain dangers inherent in such super-abbreviated studies. If one's interest in the subject is only secondary, perhaps all he wants are a few solid statements from an accepted authority. The serious student, however, can only use such a work as a guide to the literature, and in this respect it is far from complete. For a review of sites, artifacts, and skeletal remains bearing on the earliest occupations of the New World, the reader will still

derive more benefit from Miss Wormington's *Ancient Man in North America* (Denver Museum of Natural History, 1949) because the explanations are more extensive. E. H. Sellards' *Early Man in America* (University of Texas Press, 1952) is also an indispensable guide to localities and the geological-paleontological-archaeological data as originally described.

Miss Wormington has gone beyond her previous publications in bringing the study of origins up into recent millennia, involving the beginnings of agriculture, possible areas in which certain crops were first domesticated, and the trans-Pacific problem which belongs within the agricultural period. She has brought this up to date but for reasons of space could not hope actually to develop the problems. In addition to the present booklet, the reader should certainly consult Kenneth Macgowan's *Early Man in the New World* (The Macmillan Co., 1950) for a lively account of discoveries and ideas.

Still better for an exceedingly erudite and well-balanced treatment of the entire subject of early man in the New World, including racial and linguistic aspects, agricultural origins and the many facets of the trans-Pacific problem (now undergoing a vigorous revival) is the new edition of Martínez Del Río's *Los Orígenes Americanos* (3rd edition, Páginas del Siglo XX, Mexico, 1952). Nothing has yet appeared in English to compare with Professor Martínez Del Río's comprehensive treatment of all these subjects; not only does he balance ideas against one another, but much of the originally published material is made available. For those who read Spanish, *Los Orígenes Americanos* is an indispensable book; for those who don't, the reviewer is glad to report that Professor Martínez Del Río is already preparing another work which will bring all his data up to date in an English version.

Miss Wormington warns that "It is often startling to discover how small are the factual bases on which have been erected great theoretical structures which are sometimes mistaken for established facts." There are indeed few "established facts" in any aspect of human origins in the New World. In the hands of glib writers this circumstance has led to free rein for the imagination and a jeer for the hard-grubbing professional worker. Miss Wormington is, if anything, one of our most cautious writers. While her output is thus very solid, one may wish that at times she would try to be more critical where divergent ideas hold sway; some of these ideas must be much closer to the truth than others, and the scholar who knows the field best is the one whose opinions are most worth having even if they fly directly in the face of someone else's cherished notions. However, a properly critical treatment would be beyond the scope of this booklet.

One of the most interesting parts of *Origins* has to do with the recent developments of the idea of initial occupation by pre-Mongoloid peoples (pp. 90-102). This is stimulating but—like other parts—much too brief.

Students of early man in America should realize that an important conflict is arising over Carbon 14

dates, which now go back as far as late Wisconsin times. Where the glaciologists insist that painstakingly counted varves give dependable dates of about 19,000 years for the last major advance, the Carbon 14 dates consistently fall roughly between 11,000 and 12,000 years ago for what are supposedly the same events. Since the latter span occurs on different continents and under a variety of conditions, some of which are only indirectly associated with glaciers, it is difficult to think that several dozen dates could all be in error in the same degree. Miss Wormington argues (following Cressman) that samples taken from *wet* sources have not corresponded well with previous age estimates, but those from *dry* sources have (pp. 23-24). This is a most precarious generalization, for in the few cases where dated material came from a dry cave, the pre-radiocarbon date was estimated from a supposed geological association which turned out to be approximately correct, the wetness or dryness of the deposit having little if anything to do with it. In some cases the age estimates were hardly more than lucky guesses, because even the geological estimates had little concrete substance or scale to go by. In the eastern United States virtually all Carbon 14 dates are from wet sources (permanently moist deposits), yet the latest ones are much older than previously supposed, while conversely the oldest (glacial) associations have consistently turned out younger than previous estimates.

ALEX D. KRIEGER

THE UNIVERSITY OF TEXAS
AUSTIN, TEXAS

IPIUTAK AND THE ARCTIC WHALE HUNTING CULTURE, by *Helge Larsen* and *Froelich Rainey*. Anthropological Papers of the American Museum of Natural History, Vol. 42, New York, 1948. Pp. 276, pls. 101, text figs. 60, appendices 4. \$10.00.

The Ipiutak stage of Western Eskimo prehistory has been a focal point of controversy among Eskimo specialists since the discovery of the type site at Point Hope in 1939. Despite illuminating preliminary statements on the status of the material, a definitive site report, numerous comments and papers on its cultural position, and on radiocarbon dates, there is still no general agreement in print on such fundamental points as age, origins, and relationships.

Credit for detecting the Ipiutak village goes to J. L. Giddings, Jr., and H. Larsen, who recognized the vague outlines of house pits dotting the sand spit. They made an outstanding discovery and at the same time initiated a trend away from the usual practice in the western Arctic of excavating large midden deposits primarily. The Ipiutak site was seemingly a planned village with at least three avenues bordered by more than six hundred houses; there are good indications that an indeterminable number of houses had washed into the sea prior to the discovery. Excavated in the vicinity of Point Hope were shallow Ipiutak midden deposits, seventy-three houses, a test of the

Tigara midden, and houses at nearby Jabbertown. During the succeeding years, 1940 and 1941, some five hundred and seventy-one burials were discovered, but only a small portion were Ipiutak. While some of the burial goods has been included in the site report, unfortunately the skeletal material has never been published upon.

The body of the monograph opens with a physical and ecological sketch of Point Hope followed by two brief ethnographic descriptions, one of the Eskimos living at Point Hope today, the Tikerarmiut, and another of the inland Eskimos to the west, the Nunatarmiut. The former are pictured as permanent coastal sea-mammal hunters relying chiefly upon the bow-head whale, while the latter, the Nunatarmiut, are described as semi-nomadic inland caribou hunters who made only periodic visits to the sea coast for trading and sea mammal hunting. The ecological and cultural dichotomy is seemingly a historical reality, and its projection back through time is fundamental to the hypothesis later proposed for the Ipiutak people.

Included in a brief summary of previous Alaskan excavations is the lumping of most Arctic cultural manifestations into the Arctic Whale Hunting culture. This entity, largely apart from, but essentially originating out of, Ipiutak, would include Old Bering Sea I, II, III, Birnirk, Thule, Punuk, and Inugsuk as subordinate culture phases having in common such complexes and traits as open-water sea mammal hunting with floats, permanent winter houses with deep tunnels, pottery or stone lamps or pots, a ground slate industry, extensive use of baleen, the sled and bow drill.

Analysis of the Ipiutak material proper begins with a classificatory grouping of such phenomena as burials, archery, sea mammal hunting, etc. Each specific item or trait complex is described in detail in the text adjacent to the illustrating plate or in the appendices. This device avoids the placement of technical descriptions in the body of the text and is a pleasing addition. Each complex is then compared with counterparts from other sites which are almost always Arctic or sub-Arctic. A few of the most significant and diagnostic highlights of the Ipiutak culture are elaborate ivory chains, swivels and openwork carvings (primarily as burial goods); emphasis on land hunting and the bow complex; sea mammal hunting equipment, including the toggle harpoon head with a fixed or movable foreshaft (without finger rests and float attachments); the use of small pieces of forged iron from Asia; well-developed flint working techniques (there is no ground slate industry); and the presence of an art style interpreted as Scytho-Siberian.

Summarizing their interpretations of the Ipiutak finds, Larsen and Rainey feel that the bearers of this tradition were seasonal migrants who spent their winters inland and summers along the coast, with the former existence being purely hypothetical. The basis of the authors' concept of an inland winter existence is the presence at Point Hope of houses with fireplaces for burning driftwood rather than the use of blubber lamps, the importance of caribou hunting equipment and of antler as an artifact material, and the use of

birchbark for vessels and willows for under-bedding, all of which show an incomplete adaptation to coastal living. The authors demonstrate that culturally the Ipiutak people were fundamentally Eskimo, and further consider the closest Ipiutak parallels to be with Old Bering Sea I at the Okvik site.

The occurrence of a few typical Old Bering Sea I artifacts in the Point Hope Ipiutak deposit indicates to the authors the contemporaneity of these two variants of Eskimo culture; there is, on purely typological grounds, the possibility that Ipiutak is older than Old Bering Sea I. In probing the origins of Ipiutak, it is demonstrated that many of the specific diagnostic elements are present in western Siberia, and hence this is considered the Old World area with the greatest affinity. The authors are fully cognizant, however, of the fact that the northern area of Eurasia is practically unknown archaeologically, which vastly increases the possibility of interpretive error.

The section on the Arctic Whale Hunting culture follows the same style of presentation as that on Ipiutak. The Birnirk burials in particular are extremely important since they represent the first collection from this phase in which there is no question of admixture. The presence of bolas, daggers, and a whaling harpoon blade, along with the typical Birnirk harpoon heads, is most important in light of former interpretations regarding the introduction of some of these types. The Western Thule, Tigara, and Modern phases of the Arctic Whale Hunting culture are also chronicled, but unfortunately in not nearly so much detail as Ipiutak, and finally the over-all conclusions are drawn, which include a postulated date for the Ipiutak remains as during "some time in the first half of the first millennium A.D."

Reviewing a monograph six years after its publication affords an unwarranted amount of *ex post facto* insight into the data presented; with this fully acknowledged, the following comments on the Ipiutak monograph are offered. The excavations themselves still remain the most extensive and comprehensive archaeological investigation in Alaska. Never before, nor since, have an equal number of artifacts been incorporated into a single site report for one time period (Ipiutak) in Eskimo prehistory, and the number of excavated burials and houses is unprecedented. The Ipiutak monograph undoubtedly ranks with Collins' *Archeology of St. Lawrence Island, Alaska* and de Laguna's *The Prehistory of Northern North America as seen from the Yukon* as one of the three most definitive archaeological monographs on the Western Eskimo.

Unfortunately, as we now realize, the preservation at the Point Hope Ipiutak site was not nearly so good as at sites later discovered by Larsen at Point Spencer and Deering. While Larsen's final report on these excavations has not yet appeared, a preliminary paper mentions the presence of wood items such as a partially open-decked kayak model and an indisputable built-up sled. Larsen's work in the Bristol Bay region also indicates that strong Ipiutak influences spread farther south than originally supposed, and while the

manifestations vary considerably from those at Point Hope and from each other, they are clearly of a like tradition. The same general statement may be made with reference to the affinities of the middle clay layer artifacts at the Cape Denbigh Iyatayet site excavated by J. L. Giddings, Jr.; it too is Ipiutak related, but in an as yet unspecified manner.

The hypothetical base of the Ipiutak report, the proposed inland winter existence for the bearers of this cultural tradition, has yet to be archaeologically demonstrated; were it a reality, it seems highly probable that some substantiating evidence would have been uncovered by this time. There have been rather intensive field surveys to the east of Point Hope in the Brooks Range by H. Larsen, R. Solecki, L. Irving, W. Irving, and various members of the United States Geological Survey, but none have discovered any of the diagnostic complexes characteristic of the Ipiutak peoples.

The next important point to be explored is the date of the Ipiutak culture at Point Hope. It was originally given as during the first half of the first millennium A.D., and typologically Ipiutak was noted to be older than Old Bering Sea I, but possibly contemporaneous with it. Since that time, radiocarbon samples from two Ipiutak sites, Point Hope and Deering, have been "dated" at approximately A.D. 1000, while an Old Bering Sea I sample was placed at approximately 200 B.C. This obvious contradiction between geochronology and typology is not unprecedented. Assuming that the dating method itself is valid and that the samples were not contaminated, it is still dangerous to base any relationship upon two isolated dates, just as it would be equally rash to turn a typological chronology upside down on the basis of two isolated tree-ring dates.

Collins, in an interpretive paper on radiocarbon dates for the Arctic (*American Antiquity*, January, 1953; see note below) expresses the opinion that the A.D. 1000 placement for Ipiutak is too recent, and he would place it around A.D. 500 on certain specific typological grounds. At the same time, Collins does not challenge the Old Bering Sea I date of 200 B.C. According to this scheme, Ipiutak would be more recent than Old Bering Sea I, and this position is supported by the occurrence of two "winged object" fragments at Point Hope Ipiutak which could be only from Old Bering Sea. The probability of these particular

items being "winged objects" is questioned by Larsen and Rainey in the monograph. If Collins' identification is correct, then this singular occurrence may be significant; but his scheme fails to take into account many innovations present in Old Bering Sea and not in Ipiutak, such as important complexes connected with pottery, whaling, lamps and harpoon floats, all of which represent trait complexes that are unquestionably more recent. If Ipiutak is more recent than Old Bering Sea I, as Collins suggests, it is also surprising that it did not leave some determinable influence upon the long unbroken sequence on St. Lawrence Island.

It would seem that the cultural pressures and trait spreads in the Bering Sea region were much more complex than the seemingly unilinear developments of any interpretation thus far presented. As with most problems of prehistory, those of cultural developments in Arctic Alaska are becoming more complex with each excavation. And while *Ipiutak and the Arctic Whale Hunting Culture* has contributed more to our knowledge of Eskimo prehistory than any other work since the middle 1930's, in the final evaluation it only makes more strikingly apparent how little we actually know of the life, economy and importance of Alaska in the totality of New World prehistory.

WENDELL OSWALT

UNIVERSITY OF ARIZONA

ANTHROPOLOGICAL PAPERS OF THE UNIVERSITY OF ALASKA, Vol. II, Nos. 1 and 2, edited by J. W. Van Stone. College, Alaska, Dec. 1953 and May 1954. Pp. 233, pls. 10, figs. 5. \$2.00 and \$1.50.

Of the five Anthropological Papers in the third issue of this bulletin (Vol. I, Nos. 1 and 2, were reviewed in *AJA* 58 [1954] 353), the first two papers deal with specific features of Alaskan archaeology: "Recent pottery from the Bering Sea region," by Wendell Oswalt (pp. 5-18, incl. 2 pls., 2 figs.), and "Carved human figures from St. Lawrence Island, Alaska," by James W. Van Stone (pp. 19-29, incl. 5 plates).

The pottery studied includes 6,840 sherds from Kulik, on Lawrence Island, and 121 sherds from eight sites in the Seward Peninsula area. Resemblances to Asiatic wares are mentioned (cf. Wendell Oswalt, "Northeast Asian and Alaskan pottery relationships," *SWJA* 9:395-407, No. 4, Winter, 1953). The carved wooden figures are modern (19th and 20th-century) and show resemblances to Koryak work in northeastern Siberia.

The third and fifth papers are interesting ethnographical-psychological analyses: "Child rearing patterns among the Great Whale River Eskimo," by Irma and John Honigsmann; "Nunivak Eskimo personality as revealed in the mythology," by Margaret Lantis.

Of the greatest and most general interest in this group of papers is "Early intrusion of agriculture in the North Atlantic subarctic region," by Gudmund Hatt (pp. 51-107), which summarizes early history and discusses early agriculture in Norway, especially

Note by Assistant Book Review Editor:

In the brief review in the October issue (Vol. 58, No. 4, p. 353) of *Anthropological Papers of the University of Alaska*, I, several other recent papers on Arctic prehistory were cited, including that by Henry B. Collins discussed above by Mr. Oswalt and the review of *Ipiutak* in the October 1951 issue of *American Antiquity* by J. Louis Giddings. In the July, 1954, *American Antiquity* appear a pair of contributions debating further the interpretation of this major site: Helge Larsen, "The position of Ipiutak in Eskimo culture" and H. B. Collins, "The position of Ipiutak in Eskimo culture: a reply" (Vol. XX, No. 1, pp. 74-84). Consequently the great significance and general interest of the subject are believed to fully justify so belated a review of this major report.

Halogoland, in the Scottish islands (as regards Norse colonization) and the Faroes, and in Iceland and Greenland. The disappearance, in the 15th or 16th century, of the Norse settlements in Greenland receives particular discussion.

The issue of May 1954 (Vol. II, No. 2), contains a paper on "Pottery from Nunivak Island, Alaska," by James W. Van Stone (pp. 181-194); a report on tree-ring dating, "Regional chronologies in spruce of the Kuskokwim River, Alaska," by Wendell Oswalt (pp. 203-214); and two non-archaeological papers. The Nunivak pottery closely resembles that from Hooper Bay (W. Oswalt, "Pottery from Hooper Bay Village, Alaska," *American Antiquity* XVIII:18-29, July 1952).

ERIK K. REED

NATIONAL PARK SERVICE
SANTA FE, NEW MEXICO

ARCHEOLOGICAL SURVEY OF WESTERN UTAH, by Jack R. Rudy. University of Utah, Department of Anthropology, Anthropological Papers Number 12, University of Utah Press, Salt Lake City, November 1953. Pp. 182, including bibliography, figs. 62.

ARCHEOLOGICAL SURVEY OF THE LA SAL MOUNTAIN AREA, UTAH, by Alice Hunt. University of Utah, Department of Anthropology, Anthropological Papers Number 14, University of Utah Press, Salt Lake City, February 1953. Pp. 248, including bibliography, figs. 89, tables 3.

The first of these papers covers western Utah west of the Wasatch Mountains from Iron county on the south to the Idaho-Utah line on the north, or about one third of the area of Utah, and the second is on a small area of about 900 square miles in southeastern Utah. In the first area 194 archaeological sites were recorded, and in the second area some 350 sites were plotted. These surveys are a part of a project to study systematically and report on the archaeological history of Utah. The project was started in 1949, and the Statewide Archaeological Survey was initiated in 1951. By January 1953, 1,172 site locations were recorded in the files.

The sites reported on by Mr. Rudy are mostly of the Pueblo culture. The people were semi-sedentary and practiced limited horticulture. There are some sites which appear to be pre-Pueblo. A number of sites have been interpreted as Shoshonean, and in the northwestern part of Utah some sites of the Promontory culture were found. Rudy divides the occupation into three major periods: 1) a generalized Great Basin type gathering-hunting culture; 2) a Pueblo-like culture dependent on gathering and hunting, with limited horticulture; and 3) a return to the gathering-hunting type of existence. Possible dates for these periods are

suggested: the first some 11,000 years ago, the second A.D. 500-1200, and the third after A.D. 1200.

Pottery was used during the second and third periods. At least five Pueblo types have been defined. There is a Promontory ware, and after A.D. 1200 there is a non-Pueblo ware thought to be Shoshonean. The Pueblo ware is no doubt Anasazi in origin. The origins of Promontory ware are not yet clear. The Shoshonean pottery is widespread and needs much more study. Some of the shapes are similar to pottery of the Plateau and Wyoming. The assignment of the name "Shoshoni ware" to this pottery in western Utah should perhaps be given more consideration.

Mr. Rudy tends to accept the possibility that the Pueblo culture was adopted by one or more groups of Great Basin hunting-gathering people and that they may have been a group of prehistoric Shoshoneans. Steward in his paper "Native Cultures of the Intermontane (Great Basin) Area" (*Smithsonian Miscellaneous Collections*, Vol. 100, pp. 445-502, Washington, 1940), does not favor such a theory. Mr. Rudy accounts for the breakup of the Pueblo culture on the basis of climate, the major drought of the last quarter of the 13th century, rather than pressures from enemy groups. In the section on pottery and in other discussions of artifacts, the Promontory people are considered, but in the section on speculations they are not considered as a possible factor of the Pueblo contraction. In the northern area (northwest Utah), Promontory ware was found at 15 sites (124 sherds), Shoshoni ware at 25 sites (358 sherds), and Pueblo ware at 18 sites (51 sherds). The central western area of Utah was Pueblo with Shoshoni ware at 21 sites (548 sherds), and in the southwestern area the region was wholly Pueblo.

In the report there is a section on speculations, but other sections include speculations which are not summarized in that major section of the report.

On pages 171-173 a list of references on Utah archaeology and a map showing the areas of work are presented. This is a good summary of what has been done and shows where work is needed. Eight pages of photographs show types of sites, pottery, and other artifacts.

The report by Mrs. Hunt is extensive and of special interest. It includes an introductory section on the environment of the La Sal Mountains, a summary of data on the occupations of the area in relation to the natural environment, and an extensive discussion of the evidence. The data are summarized in three tables. There is a contour map of the area surveyed, and the sites are located on the map for reference.

Some 350 sites in three major altitudinal zones were located: (1) canyons, below 6000 feet, 151 sites, (2) pinon juniper, 6000-8000 feet, 84 sites, and (3) mountains, above 8000 feet, 119 sites. The mountain sites are considered seasonal camps, the others more or less all-year areas except for the pinon-juniper zone, which was limited for a part of the year.

Most common of the cultures found in the area was the Fremont, a culture of Anasazi connections, dating from about A.D. 500 to 1300 (72 sites). The recent

Shoshonean is the next most common. Of earlier groups some may have been related to the Amargosa of the California deserts and Nevada. At a few sites some pottery resembling Awatobi Yellow ware was found, which suggests Hopi contact in the area. At sites near La Sal and northwest of the mountains there is some evidence of later Navaho occupation. This interpretation checks with ethnographic data from Navaho who claim that the Navaho hunted occasionally in the La Sal Mountains.

During the Fremont occupation there seem also to have been nomadic hunting and gathering people in the area. Their sites were found at all altitudes but not at Fremont sites. Large corner-notched projectile-points are characteristic of the sites. Points of these types are widespread but seem to trend to the north and northwest from the La Sal Mountains. The last major occupation of the area seems to have been recent Shoshonean, perhaps Utes. Shoshonean occupation was found at about 30 sites, with certainty at 6 campsites in the canyon and pinon-juniper zones.

As Mr. Rudy and Mrs. Hunt have not ordered their data in the same way, it is difficult to fit the two reports together; but in so far as culture sequence in the two areas is concerned, they are similar. The western sequence is early Amargosa-Puebloid-Promontory-Shoshonean-Shoshoni. The La Sal Mountain area is early Amargosa-Fremont-nomadic-Shoshonean-Ute. The Shoshonean seems earlier in the west, and the Promontory did not get so far south as the La Sal Mountains, but there were nomadic groups in the area at about the same time as the Promontory in the north. In both areas at the breakdown of the Puebloid culture the Shoshoneans moved in, but in northwestern Utah and in the La Sal Mountains nomadic groups are present before the horticultural groups give up the areas. Steward has suggested that the Promontory people were culturally from farther north and that they may have been Athapaskans. It may be that nomadic Athapaskan people were on the move in the mesa and canyon region and the central mountain region of Colorado at the middle and end of the Puebloid-Fremont period and that the Shoshoneans closed in behind after the final break-up of the Puebloid-Fremont groups. Athapaskan groups may have reached the area of southeast Utah and southwestern Colorado and may then have begun their infiltration of the Anasazi area proper. Climatic changes may have been among the factors which caused the contraction of the horticulture frontier between 1150 and 1300, but with the varieties of cultures present and their sequence, it does not seem possible to rule out other factors such as pressure of enemy peoples.

Mr. Rudy discusses the naming of the archaeological area of Utah. Steward referred to the area as the Northern Periphery in 1933 (Steward, J. H., *Archaeological Problems of the Northern Periphery of the Southwest*, Museum of Northern Arizona Bulletin 5, Flagstaff, 1933), and divided it into four areas. In 1940 (previous citation) Steward included Utah in the Intramontane area and discussed the cultural develop-

ments of the whole area. Albert H. Schroeder has suggested that (Rudy, 1953, p. 169) the name "Utah Branch" be used to designate the Pueblo-like culture found in Utah. Rudy feels that the term Northern Periphery in referring to Utah tends to submerge and obscure the individuality of the Utah cultures. Perhaps when more excavations have been accomplished the Utah picture will be clearer. These reports on surveys indicate some more of the possibilities. Both contain valuable data and point to the need for more information and stratigraphy from key sites. Utah is a part of a larger area or areas, and it is at the northern end of what Paul Kirchhoff has termed Arid North America or the Greater Southwest, an area with a long culture history in which there were two contrasting cultures at one stage, agricultural and hunting-and-gathering. The use of maize reached an extensive limit between A.D. 900 and 1000; and between A.D. 1100 and 1300 these limits contracted considerably. The area vacated was taken over by the Shoshoneans and Athapaskans. The interrelationship between these three factors is of major importance in far western archaeology and the relationship of the historic groups to the prehistory of the western United States. Concentrated surveys such as that accomplished by Mrs. Hunt, and then excavation or at least testing of key sites, would go a long way in recovery of data needed to bring order into the presently mixed situation of many major problems. The University of Utah, Department of Anthropology, has gained much in a very short time.

MALCOLM F. FARMER

MUSEUM OF NORTHERN ARIZONA
FLAGSTAFF, ARIZONA

THE GEOLOGY OF CHACO CANYON NEW MEXICO IN RELATION TO THE LIFE AND REMAINS OF THE PREHISTORIC PEOPLES OF PUEBLO BONITO, by Kirk Bryan. Smithsonian Miscellaneous Collections, Vol. 122, No. 7. Smithsonian Institution Publication 4140. Washington, 1954. Pp. 62, pls. 11, text figs. 2 and map.

Bryan's paper is the second resulting from the National Geographic Society's Pueblo Bonito Expeditions in Chaco Canyon, northwestern New Mexico, between the years 1921 and 1927. While his field work was limited to two brief periods in 1924 and 1925, Bryan continued revisions of this paper until 1940. After his death in 1950 the manuscript was given to the Society, which made it available in 1953 to the Smithsonian Institution. It was edited by Neil Judd of the U. S. National Museum.

The study covers the recent geology of the upper reaches of the Chaco Arroyo where it is confined by canyon walls, a distance of some 12 miles and the area of the greatest prehistoric population. It is Bryan's thesis that this large agricultural population, reaching

its zenith in Pueblo III times, was forced to abandon the area by arroyo-cutting, which came about as the result of a climatic change.

The report is presented in three major sections: (1) The Physiography of Chaco Canyon, dealing with the history of the canyon up to the present; (2) Present Geological Processes, a section treating the natural forces shaping the present topography; (3) The Valley Alluvium, its material, depth, evidences of human occupation, the buried channel indicative of former cycles of alluviation and erosion, together with observations on floodwater farming. Throughout, the paper has the advantage of Bryan's wide knowledge of recent Southwestern geology and he draws on this fund to illustrate the conditions under which primitive floodwater farming can exist, and also to point up the fact that the geologic history of Chaco Canyon is not unique but that similar conditions were repeated over much of the Southwest.

Bryan places the original formation of Chaco Canyon itself in Pleistocene times. Following this there was a long period of alluviation, which may have reached a total depth of nearly 100 feet. He notes one of Judd's pit houses at a roof depth of 6 feet in the alluvium. Since this paper was written, Richard Adams has excavated Half House, with a floor depth of 16 feet in the alluvium. Bryan does not suggest dates for the deposition occurring within the time of man here, but it would probably represent a period of 400 to 500 years. During this period of deposition the steadily rising floor of the canyon was well suited to agriculture based on floodwater farming.

At the end of the period of deposition, there ensued a period of arroyo-cutting which lowered the water-table, quickened the runoff and made agriculture impossible. "Formation of the arroyo system represented by the Post-Bonito Channel may be given as the approximate cause for abandonment of the valley by these Pueblo III people" (p. 47). This erosional phase was followed, apparently quite soon, by another period of alluviation which filled the channel and added another two feet to the valley fill. It, too, came to an end, with the formation of the present arroyo system, at a time which Bryan places in the decade between 1860 and 1870. The present arroyo increased from a depth of 16 feet in 1877 to a depth of 30 feet and a width of 150 to 500 feet in 1925.

Bryan's observations on floodwater farming are acute, and the arguments he presents to show that deep arroyo systems prevent or seriously hamper such farming are sound and logical. Yet this reviewer feels that he fails to present a convincing argument that the abandonment of Pueblo Bonito and the Chaco Valley was caused primarily by the development of the prehistoric arroyo system. Throughout he refers to this arroyo system or channel as the "Post-Bonito Arroyo." A chart of erosion and sedimentation cycles on page 49 gives as the third cycle the erosion of the "Post-Bonito" channel. On page 34 he notes, "Late Bonito potsherds on the bottom of it identify the channel with the final years of Pueblo Bonito or later," and on page 61, "The

channel must have been refilled late in the occupancy of Pueblo Bonito or after its abandonment." On page 58 is a reference to sherds showing "contact with the Mesa Verde culture" from the fill of the channel.

Thus it would seem that what Bryan meant was that the same conditions which caused the abandonment of the Chaco also caused the formation of an arroyo system. At one point above he dates the prehistoric channel late in the occupancy of Pueblo Bonito, and at another point he suggests that the channel may even have been refilled while Bonito was occupied. It should also be noted that while the formation of an arroyo system or the factors that caused this erosional cycle may have resulted in abandonment by the bulk of the prehistoric population, occupation of Chaco Canyon continued on a lessened scale for some time afterward. Mesa Verde reoccupation of some major sites, as well as the establishment of small Mesa Verde units, argues for occupation well into or toward the close of the thirteenth century.

By climatic change Bryan meant any change in the amount or distribution of rainfall sufficient to change the existing vegetation. Douglas' study of the tree-ring material from Pueblo Bonito, published in 1935, shows among other data a short but severe drought at A.D. 1090-1101. It was Douglas' conclusion that cutting of the forest in the Chaco area caused a microclimatic change with a resultant drying out of the area and a decrease in its ability to support an agricultural life. It is unfortunate that neither Bryan nor his editor noted or attempted to correlate Douglas' dated periods of drought with the recent geologic sections.

The paper is very well illustrated with photographs by O. C. Havens, and it carries a National Geographic Society map whose advent, after 27 years, is indeed welcomed.

GORDON VIVIAN

NATIONAL PARK SERVICE
CHACO CANYON, NEW MEXICO

THE RUINS OF ZACULEU, by *Richard B. Woodbury* and *Aubrey S. Trik*, with an introduction by *John M. Dimick*, project director, and special contributions by *Charles Weer Goff*, *William C. Root*, *T. Dale Stewart*, and *Nathalie F. S. Woodbury*. United Fruit Company. Boston, 1953.

This report is the outcome of an expedition to Zaculeu, a Maya site in Guatemala, sponsored by the United Fruit Company as part of an extensive program of public service projects undertaken for the nations of Middle America, and carried out under the direction of John M. Dimick, assisted by Aubrey S. Trik and Stanley H. Boggs. The latter was replaced by Richard B. Woodbury in 1948. The report embodies the findings of seventy-four weeks of dry-season field work from 1946 to 1949, including simultaneous restoration and exploration.

In the introduction Dimick points out the reasons

for restoring an ancient highland site, and for selecting Zaculeu. He outlines the difficulties and problems involved in setting up the Zaculeu Project: acquiring raw materials for making cement, moving water from river to site, and obtaining necessary supplies in the period immediately after World War II. He concludes, after praising his assistants and thanking various contributors, with a quotation from the dedicatory address made by Doris Stone which emphasizes the importance of trade in the founding of such cities as Zaculeu.

Following the introduction, Nathalie Woodbury outlines the historical background. She covers the pre-Conquest period of the Mam area in northwest Guatemala, the initial conquests in Guatemala, and the expedition against the Mam in 1525.

Then Trik in four concise chapters describes the site, the architecture, the graves, and the caches. Zaculeu, occupied continuously from Early Classic times until its final overthrow by the Spaniards, is located in the northwestern part of the Huehuetenango Valley, 4 km. west of the city of Huehuetenango. It is situated on a small peninsula-like spur bounded on three sides by deeply eroded barrancas and on the remaining north side by a narrow neck of land, about 150 m. wide, which may have been protected by the erection of non-permanent palisades or barriers. The small size and isolated prominence of this site suggest that it is appropriate to a religious and ceremonial center. This center consists of some forty-three structures generally arranged to form rectangular courts or plazas. All but eighteen structures were investigated usually by means of narrow axial trenches, after which they were partially restored. Most building periods can be correlated with the ceramic sequence based on pottery taken from graves, caches, and structural fill.

During the Atzan Phase little was learned about architecture, and not much more in the Chinaq Phase save for the use of split upper stairways, divided by rectangular blocks or a medial battered balustrade. It is in the Qankyak Phase that important architectural changes can first be observed; and in this phase there are notable changes in burial customs, including the appearance of masonry burial vaults, cremations, and metal artifacts in graves. During the Xinabahul Phase three distinct types of building plans occurred: a small two-chamber building with two round columns at the entrance; a long gallery-like building with multiple openings on the front; and a round room combined with the basic two-chamber plan. Cremation continued as the principal method of dealing with the dead, human ashes being placed in pottery vessels.

The four successive ceramic phases, into which the occupation of Zaculeu was divided, were founded on material from well-furnished graves. These phases were arbitrarily named in alphabetical order—Atzan, Chinaq, Qankyak, and Xinabahul. Atzan, an Early Classic Phase, equates roughly with Esperanza, Balam, and Chixoy I. Chinaq is approximately equivalent to Late Classic and is probably contemporaneous with Pokom and Chixoy II. Qankyak, an early post-Classic phase, may be compared to Tohil, Chixoy III, the

single ceramic phase of Tajumulco, and the final occupation at Copan. Xinabahul belongs to the pre-Conquest era and equates roughly with the Yaqui Phase when "hilltop fortresses" were being built in highland Guatemala.

Woodbury also gives a good description of the various pottery types, and describes the stone, metal, shell, bone, stucco, cloth, matting, and cordage artifacts unearthed at this site. He traces the appearance of these in the different phases. Pyrite mosaic plaques, thick slab metates with three short legs, tapered cylindrical manos, jade beads and pendants, discoidal shell beads, bone awls, needles and tubes, open-weave cloth, and stuccoed pottery are characteristic of the Atzan Phase. Save for an abundance of obsidian flake-blades, a few pyrite mosaic plaques, a few jades, rare occurrence of shell ornaments and stuccoed pottery, little is known about artifacts during the Chinaq Phase. Perhaps the most important diagnostic of the Qankyak Phase is metal (gold, tumbaga, copper), which appears for the first time; although specimens are few, they bulk large in the total on record from Guatemala. Other artifacts associated with and diagnostic of this phase are: thin slab metates with three long legs, sometimes in effigy form; straight cylindrical manos; chipped points or blades (stemless triangular, tapering stem, and expanding stem); turquoise mosaic; jade mosaic, carved obsidian; and alabaster vases. The artifacts assigned to the Xinabahul Phase are in general similar to those of the Qankyak Phase. Chipped blades are stemless leaf-shaped, and with expanding stem. Shell, bone, and stucco specimens are rare. The stucco was probably used on cloth or leather objects.

In Chapter IX, Dr. Goff presents an anthropometric study of a Mam-speaking group of sixty-one male Indians from Guatemala, with morphological observations on age, hair, eyes, nose, teeth, skin, and constitutional types. The skeletal remains are described by Stewart. He analyzes the burials and discusses the skulls with special emphasis on the degree of artificial deformity exhibited by many. This skull deformity is of two main types—pseudocircular and fronto-vertico-occipital—and has a chronological significance. Dental mutilation is given special attention, and each of the nine cases is carefully recorded. Filing and notching are the techniques used; dental inlays are absent.

Finally Dr. Goff reviews the evidence of pre-Columbian bone syphilis in Guatemala. As a result of this new evidence and after careful comparative studies of gross specimens, together with roentgen examinations, the existence of syphilis in Guatemala, prior to contact with Europeans, is clearly indicated.

This handsome publication has much to recommend it. The fact that it is presented in two volumes, one of text and one of illustration, makes possible the examination of both simultaneously. The illustrations are excellent in general. The descriptions both of architecture and artifacts are clear, concise, and well organized. The summary of important traits gives one an itemized review of each ceramic phase, including important additional cultural traits such as architec-

ture, construction and decoration, graves, and artifacts other than pottery. The excellent anthropometric study of a Mam-speaking group of Indians from Guatemala, when used in conjunction with similar studies made by d'Aloja in 1923 and Byers in 1931, supplies a series for comparison with the builders of Zaculeu. Fortunately the skeletal remains from this site, amounting to some 250 individuals, and their relatively good state of preservation, made possible a very rewarding study by Stewart. The same excellent bone condition, plus the possibility of accurate grave dating, gave Goff new evidence of pre-Columbian bone syphilis in Guatemala.

Unfortunately some of the excellence of this publication is marred by a number of specific errors linked with the description and illustration of structures, graves, caches, and the sections wherein the graves and caches are shown. Perhaps the most regrettable defect is the lack of synthesis, especially in view of the abundance of time-space data available. To me, however, the greatest omission is a careful study of the pottery native to Zaculeu. The authors clearly state their reasons for not reporting on material other than that found in graves or caches. I accept their explanation, but nevertheless am left wondering, after setting aside the trade specimens, what the true Zaculeu ceramic story is. It would be a worthwhile project for some ambitious student to work over the pottery from sealed levels in axial trenches and compare the chronological results with the sequence found in the single undisturbed dump worked and described by the authors, as well as with the grave material. If there is too much disturbance caused by intrusive graves in the center-line trenches to allow for a recognizable ceramic sequence, then it is possible that W. S. Robinson's method (*American Antiquity*, vol. XVI, 4, pp. 293-301) for chronologically ordering archaeological deposits might succeed.

In conclusion, there are a few points that I question. Although the authors specifically state that the names Atzan, Chinaq, etc., stand for ceramic phases based on the material from sequent graves, it is perplexing to note that they are also used as cultural phases. Furthermore, is it wise to designate as ceramic phases of Zaculeu material from graves, even though chronologically placed, when it is certain that a very considerable proportion of the specimens are from elsewhere? Not only are we dealing with trade pieces but with specialized grave types and with the absence of utilitarian pottery. Therefore, it might have been better to use the broader terminology of Early Classic, Late Classic, early post-Classic, and late post-Classic (or protohistoric) and leave the designation of pottery phases until a thorough ceramic dig is done.

ROBERT ELIOT SMITH

CARNEGIE INSTITUTION OF WASHINGTON
CAMBRIDGE, MASSACHUSETTS

CONTRIBUTIONS TO AMERICAN ANTHROPOLOGY AND HISTORY, Vol. XI, Numbers 52-56, Carnegie Institution of Washington Publication 596, Washington, D.C., 1952. Pp. 236, figs. 145.

This volume has been prepared with the usual precise editing and excellent illustrations characteristic of publications of the Carnegie Institution of Washington. It contains five contributions to the field of Middle American anthropology written by different authors and on different subjects. Each contribution will be discussed individually.

CONTRIBUTION No. 52: "Geologic Observations on the Ancient Human Footprints Near Managua, Nicaragua" by *Howel Williams*, pp. 1-32, 11 figures.

This Contribution deals with the controversial "pre-Adamite tracks" first reported in 1884 by Earl Flint near El Cauce on the shore of Lake Managua in Nicaragua. These footprints were impressed in a mud floor layer and were later covered with some four meters of soil and volcanic deposits. Their age was estimated by Flint and Crawford as from 50,000 to 200,000 years. Much heated argument arose concerning this dating. In 1941 Mr. Francis B. Richardson and Dr. Karl Ruppert, both of the Carnegie Institution of Washington re-opened the investigation of the footprints. Later, at the request of the same Institution, Dr. Howel Williams made two trips to Nicaragua (1941 and 1949) to determine the origin and mode of deposition of the footprint beds and to estimate their age. The investigation was extended to a much larger area and included a study of the volcanic chain in Nicaragua. The age of the footprints was estimated on the basis of fossil, geological and archaeological evidence. The discovery of the fossil jaw of a species of deer no longer in existence in Nicaragua and tracks of bison made at the same time as the human footprints or shortly thereafter suggest that the prints were made not earlier than 2000 to 5000 years ago. It is unfortunate that there is no way to determine the time when bison became extinct in Central America. Although the rate of deposition of the overlying layers of soil is a matter of speculation, they were apparently laid down relatively rapidly. Although Crawford in 1891 reported crude stone implements "deeply buried in the footprint bed," the excavation of Ruppert and Richardson yielded mostly pottery. Very little is known of Nicaraguan pottery but the presence of one Usulután sherd in the topmost layer of soil would indicate that the underlying footprints were older than the Early Formative. The reviewer feels as dissatisfied with the results of this appraisal as does the author but, if nothing else, the new evidence tends to disprove the earlier highly improbable dates and points toward a more acceptable date of 2000 to 3000 B.C.

CONTRIBUTION 53: "Mound E-III-3, Kaminaljuyu, Guatemala" by Edwin M. Shook and Alfred V. Kidder, pp. 35 to 130, 81 figures.

This paper is perhaps the most significant in the volume. It is concerned with the excavation of one of the largest and most important ceremonial mounds of Kaminaljuyu, the well-known archaeological site located on the outskirts of Guatemala City. The difficult excavation was conducted with great skill by Edwin M. Shook, who here discusses the architectural features and the steps followed in the process of excavation while Dr. Kidder reports on the artifacts and discusses the cultural significance of the material excavated. The Mound known as E-III-3 was originally twenty meters in height and 70 meters by 90 meters at its base. It contained at least seven superimposed *adobe* structures and two extremely rich tombs. The material excavated indicated that the mound was constructed during the Formative period, or more specifically, during Miraflores times. Prior to this excavation it was not suspected that the early inhabitants of the Guatemalan highlands had a sufficiently stable economy and government capable of marshaling and directing the efforts of such large numbers of workers necessary to erect this huge ceremonial and burial structure. In the opinion of the reviewer, this type of building activity indicates the existence of an incipient urban culture at a very early date in Middle America, a fact that is not yet generally recognized.

CONTRIBUTION 54: "Conquest Sites and the Subsequent Destruction of Maya Architecture in the Interior of Northern Yucatan," by Ralph L. Roys, pp. 129 to 182, 4 figures.

This study is principally an effort to clarify our knowledge of the population centers prior to the Spanish Conquest of northern Yucatan. Although the archaeological history of Yucatan is becoming clearer and better known all the time, the period immediately prior to the Spanish Conquest is practically unknown due to the difficulty of locating architectural remains. Roys has delved into the literary data, both Maya and Spanish, to learn more about these Conquest period sites. He concludes that a large number of towns in northern Yucatan are located at their pre-Spanish sites and that the present churches and *plazas* are situated directly upon the structures of the ceremonial centers of the old towns. Subsequent destruction of the pre-Spanish structures by priests and missionaries and the use of the stone in later buildings accounts for the lack of architectural remains from the Conquest period. This work of Roys demonstrates again the great value of an introspective analysis of historical data when archaeological facts are scant.

CONTRIBUTION 55: "The Ball Courts at Copan, with notes on courts at La Union, Quirigua, San Pedro Pinula and Asunción Mita," by Gustav Strömsvik, pp. 183 to 214, 23 figures.

Strömsvik's report concerns the ball courts at Copan discovered during the excavations conducted by the Carnegie Institution between the years 1935 to 1942. This report has been long awaited because the excavation of the three superimposed ball courts at Copan brought to light many important facts concerning the origin and distribution of this interesting Middle American game. It appears from the excavation that the first of the Copan ball courts was probably the earliest of its kind in Middle America and therefore Copan may well be the place of origin of the ball-game and the center from which it later diffused. According to Strömsvik's and Morley's calculations, the first court was built around A.D. 420 and the last court around A.D. 750. The fact that the form of the court changed little if at all during these 300-odd years seems to bespeak a tradition perhaps much older than any architectural remains. Although Strömsvik includes some notes and photos on nearby ball courts in eastern Guatemala our knowledge of ball courts throughout the Maya area is still pitifully inadequate. This is a subject that warrants more intensive investigation.

CONTRIBUTION 56: "Pottery from Chipoc, Alta Verapaz, Guatemala" by Robert E. Smith, pp. 215 to 236, 26 figures.

Our present knowledge of the ancient cultures of the department of Alta Verapaz in northern Guatemala is very meager and therefore Mr. Smith's report is most welcome. It is particularly important because Smith's data corroborates and amplifies Butler's sequence (1940) of the Chixoy drainage in western Alta Verapaz. The new phases in the Coban drainage designated Chipoc and Seacal are equivalent to Chama 3-4 and Chipal 1 in the Chixoy drainage while Samac is contemporaneous with the Chipal 2 or Tohil plumbe phases. Smith's method of presentation of the excavated material in the form of detailed captions to the figures using ware, type and form as the bases for figure grouping merits special attention. It strikes the reviewer as a most economic form of presentation and in addition is an efficient time saver in that it eliminates the necessity of frequent switching from text to figures. It is to be hoped that Smith's method will be adopted whenever possible in future reports of archaeological excavations.

STEPHAN F. DE BORHEGYI

UNIVERSITY OF OKLAHOMA
NORMAN, OKLAHOMA

EXCAVATIONS AT WARI, AYACUCHO, PERU, by *Wendell C. Bennett*. Yale University Publications in Anthropology, No. 49, 1953. Yale University and Oxford University Press. Bound together with No. 50 of series, combined price: \$3.00.

Since the inception of systematic archaeology in Peru, the concept of a Tiahuanaco, or Tiahuanaco-Derived style has been a major element in all reconstructions of Peruvian prehistory. Max Uhle first established the presence of Tiahuanaco-related ceramics in the coastal sequences at Moche and Pachacamac. Kroeber formalized these into a "Tiahuanaco horizon style"; and both Tello and Means realized the profound importance of Tiahuanaco art influences in central Andean archaeology. The excavations at Wari strike at the heart of this problem of the Tiahuanaco stylistic diffusions. In these excavations and their analysis Bennett strove to discover the origins and meaning of these pan-Peruvian phenomena.

Wari is located in the Mantaro basin of the central Peruvian highlands not far from the modern city of Ayacucho. It is an extensive hilltop and hillslope site, marked by many surface evidences of stone architecture and refuse. Bennett estimated the zone of the site to be at least 1.5 kilometers square. For several years Wari has been known as a source of "Peruvian Tiahuanaco" pottery. This designation "Peruvian Tiahuanaco," refers to the widespread Tiahuanaco ceramic style rather than the pottery found at the Bolivian site of Tiahuanaco proper. The two are not unrelated, but their differences are such that most archaeologists have become convinced that the Peruvian manifestations of the style are not the results of direct diffusions from the Tiahuanaco site. They have speculated upon a secondary center of major importance, and Wari has been suspected of being such a center.

Bennett's stratigraphy in the refuse heaps at Wari revealed two major periods of occupation. The earlier is the Wari period, characterized by the Peruvian Tiahuanaco style that is closely related to the well-known manifestations at Moche, Pachacamac, and the south coast site of Pacheco. The late period at Wari probably has no direct relation to this Tiahuanaco Wari period. It is a black-on-white pottery complex, vaguely similar to the late period of the Chancay Valley of the central coast. It shows no Inca influence, but Bennett believed it to be immediately pre-Inca. He has named it the Huarpa. Stratigraphically intermediate between the Wari and Huarpa periods is a polychrome pottery style, the Ayacucho. This Ayacucho Polychrome is clearly Tiahuanaco-affiliated, and it must, at least in part, derive out of the earlier Wari style. As such, it may represent a continuity at the site—a continuity probably broken later by the Huarpa series.

Bennett believes Wari to have been the important, long sought for focus from which Tiahuanaco-like influences were radiated to the rest of Peru. He also advances convincing arguments for Wari being secondary to Tiahuanaco proper. At the Bolivian site there is a precedent chronological series from which Classic

Tiahuanaco could have developed. At Wari nothing of the sort has been found; the Tiahuanaco influences appear suddenly and fully formed. This, of course, leads to the question of the make-up of the earlier pre-Wari periods in the Mantaro Basin. There are few clues to this, but, presumably, there were cultures in this region contemporaneous with Classic Tiahuanaco, Nazca, and Interlocking. In other words, all the present evidence would indicate that the time position of the Wari period in the overall Peruvian scheme would be on the Tiahuanaco horizon level rather than contemporaneous with Classic Tiahuanaco.

Bennett's results throw an interesting light on the Nazca style of the south coast. Nazca Y has been considered as the Tiahuanaco-influenced end of the Nazca stylistic continuum. Bennett's Ayacucho polychrome style is very closely related to Nazca Y. Thus, at Wari, a Nazca Y-like style clearly follows an earlier Peruvian Tiahuanaco style. Is the south coast occurrence of Nazca Y simply a second and later Tiahuanaco style wave, following the earlier Wari style diffusion which is found on the south coast at Pacheco? Or is the Wari occurrence of the Ayacucho style the result of a backwash from the coast which carried a Nazca-Tiahuanaco blend product to the Mantaro? Bennett seemed to favor the first interpretation, but the solution to the problem is not yet evident. One important fact, however, is outstanding in connection with the Ayacucho-Nazca Y pottery. It is distinctly southern in its distribution, going no farther north than Wilkawain in the highlands and Ancon on the coast. On the other hand, the purer Tiahuanaco-like designs of the Wari style are found as far north as Moche and Chicama.

Bennett asks the question: Why was the total Wari culture—its architecture, artifacts, and other elements—not distributed, only the art style? He answers this by explaining that this very pattern of diffusion suggests a religious and ideological expansion—not a great population movement. One could also add to this by pointing out that by the time of the Tiahuanaco horizon Peruvian populations were of such a size, and the country was so completely filled with people, that large-scale migrations were almost out of the question. It is, of course, possible that mass movements could have been accomplished *mitimae* fashion as happened under the Inca. There is some evidence on the north coast of Peru that settlement patterns and architectural forms changed, as well as ceramic styles, with the advent of Tiahuanaco influence. This may, or may not, mean that there was a substantial shifting of populations. The large rectangular enclosures or compounds were introduced to the north coast at this time. Such great enclosures are also present at Wari. Bennett has, tentatively, dated these Wari enclosures as belonging to the Huarpa rather than the Wari period, but this dating is by no means secure. It may be that the large enclosure was a central highland settlement idea stemming from Wari as the Peruvian Tiahuanaco ceramic styles also seem to rise from that site.

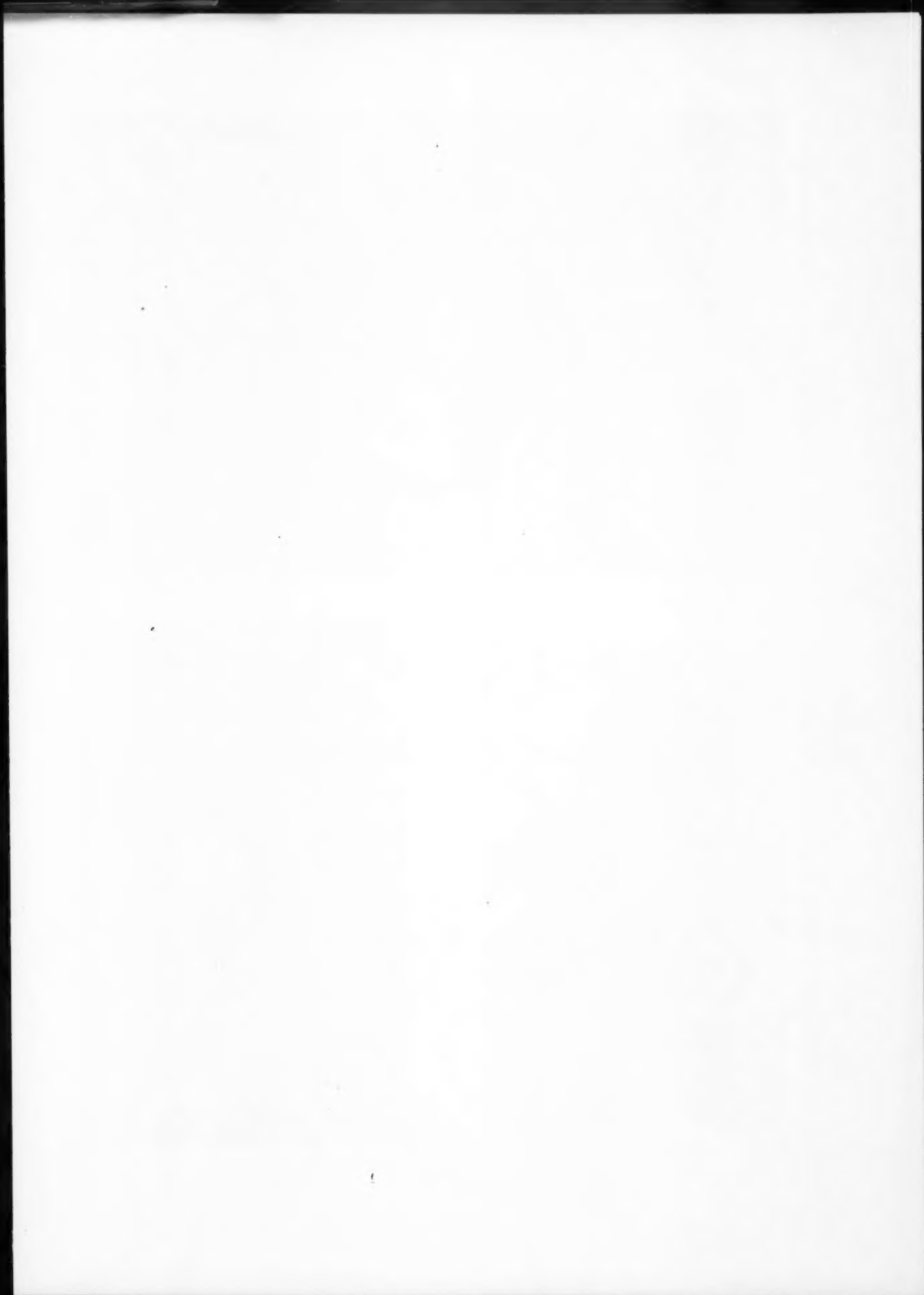
It is fitting to close this review with a brief résumé of the significance of Wendell Bennett's work in the field of South American prehistory. In his sudden death

last year Americanist ranks lost one of their most brilliant members. Bennett began his Andean investigations in the early 1930's at the site of Tiahuanaco in Bolivia, and it is through his work that we have a knowledge of culture sequences on the *altiplano*. Pushing eastward into lowland Bolivia, he demonstrated the manner in which highland cultural influences gradually thinned and disappeared into the lowland jungles. Turning back to the Andean regions in 1936, his excavations on the north coast improved upon the earlier reconstructions of Uhle and Kroeber. Recognizing the significance of Chavín culture and style, Bennett carried out important studies at Chavín de Huantar and in the Recuay district of the Callejón de Huaylas in 1938. Our knowledge of stylistic sequence in these regions is due almost wholly to his

efforts. He was one of the instigators and principal participants in the Virú Valley program on the north Peruvian coast. His final work at Wari in 1950 climaxed these efforts in the central Andean area. Outside of Peru-Bolivia he worked in and published upon the archaeology of Colombia, Venezuela, Ecuador, and the Argentine. He was the author of standard reference works on South American archaeology in both the *Handbook of South American Indians* and a popular handbook published by the American Museum of Natural History. Without question Wendell C. Bennett was the outstanding authority on the prehistory of South America of his day.

GORDON R. WILLEY

PEABODY MUSEUM,
HARVARD UNIVERSITY





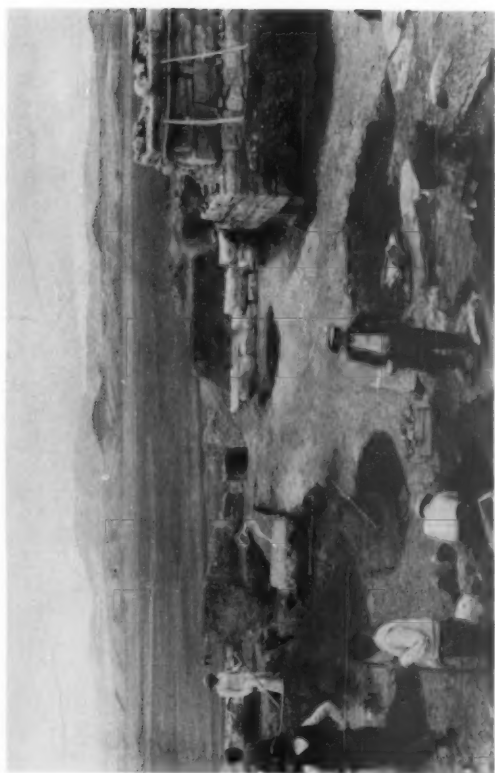


FIG. 2. South Wall of Persian Gate (at right), showing Slot left by wooden Beam set into the Masonry now filled with small Stones



FIG. 4. Tripod Ring-Stand of polished gray local Ware



FIG. 5. Rhyton of black polished Ware, with Lion's Head

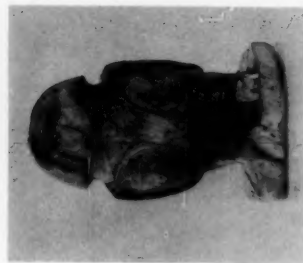


FIG. 9. Owl Stamp-seal of Ivory;
Front, Bottom and Side Views



FIG. 7. Northwest Corner of second Hearth Building, showing Foundation of Beams

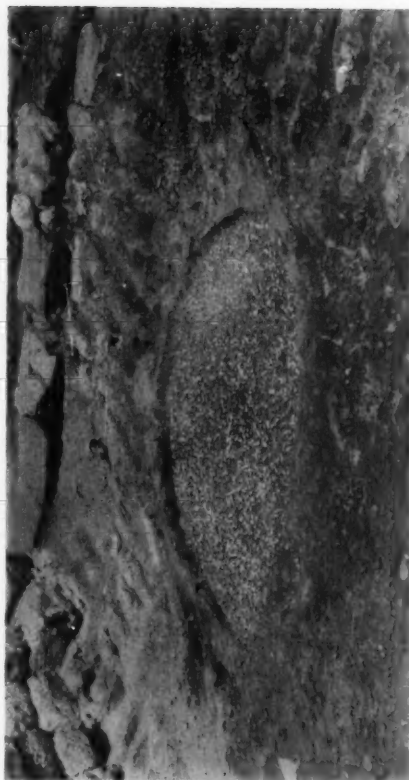


FIG. 8. Pebble Bedding of second Fire-place in Hearth Building

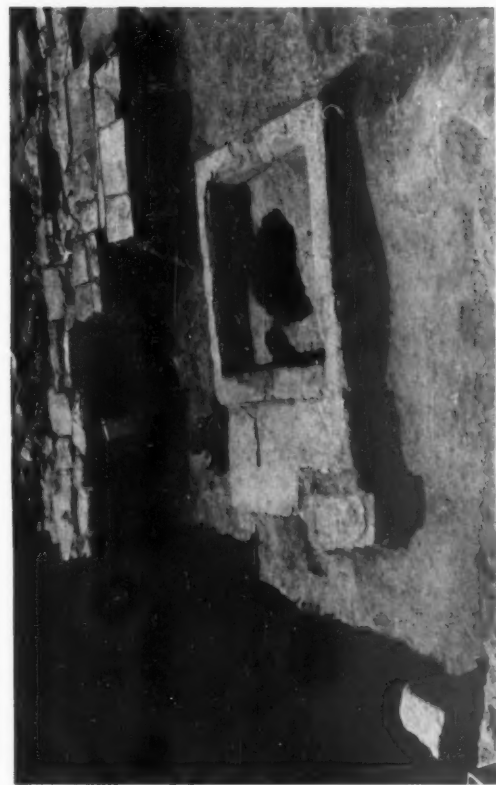


FIG. 10. Stone Coping of fourth Fire-place in the Hearth Building showing also some of paved Floor



13. South Foundations of Building C, the later Wall partially overlying the earlier



FIG. 12. Clay Hearth of Building C, showing impression left by metal Fender or Curbing



FIG. 14. Inner Face of north Foundation of Building C, showing beam Holes under the Masonry. Earlier Foundation at right



FIG. 15. The Annex, with Deposit of broken Plaster overlying the Floor.
Above, the stone Socle of the Bronze Foundry

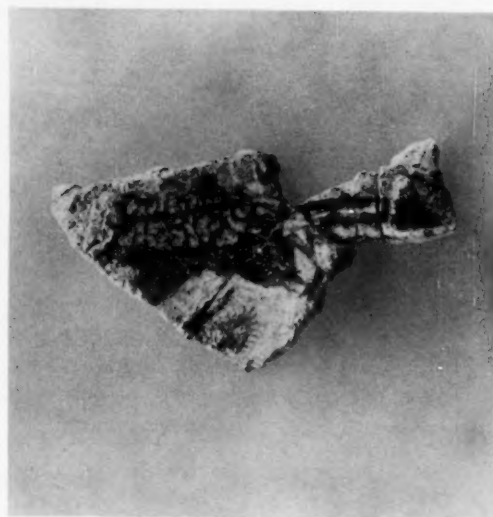


FIG. 16. Fragment of painted Wall Plaster:
Part of Woman's Head



FIG. 17. Painted Plaster: Procession of Women



FIG. 18. South Wall of the Annex, with Plaster Panel *in situ*

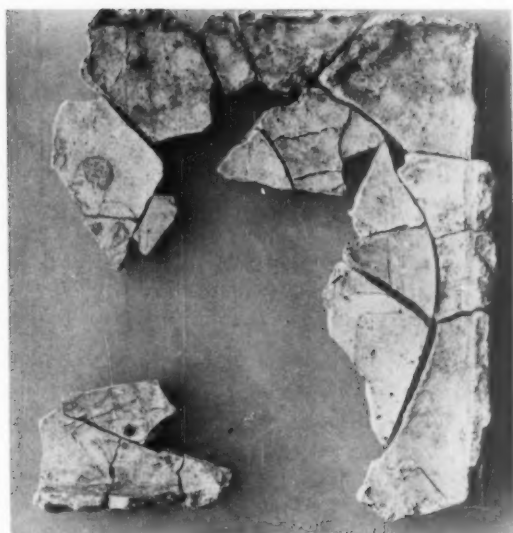


FIG. 19. Reconstructed Panel of painted Plaster: Gymnasium Scene (?)



FIG. 20. Two Fragments of painted Plaster: Archaic Heads



FIG. 21. Painted Plaster Fragment: Griffin's Head



FIG. 22. Stone with carved Footprints and Phrygian Inscription

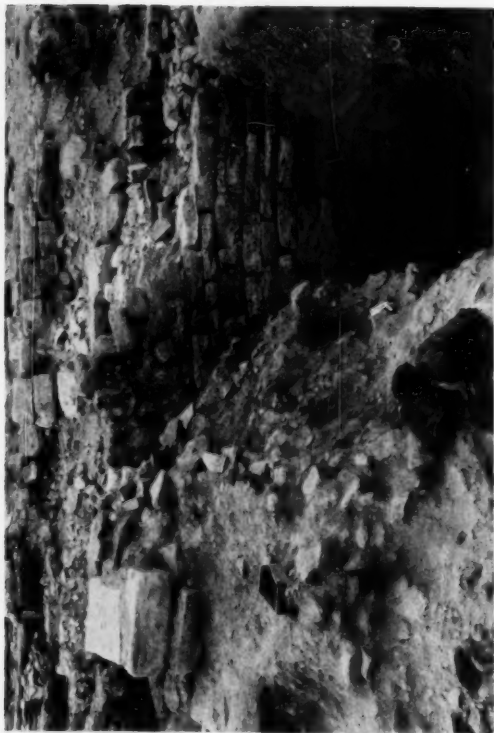


FIG. 23. Outer Face of Phrygian City Wall, cleared in 1952. The Blocks over it at the left belong to the South Wall of the Persian Gate

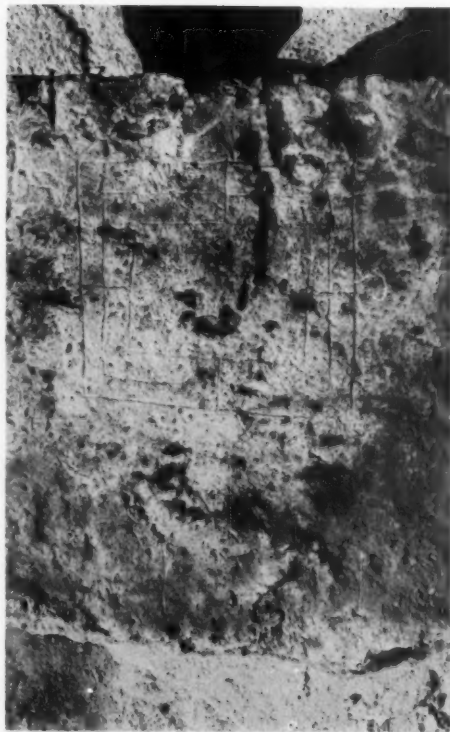


FIG. 25. Block scratched with Design for Game of Dokuz Taş or Mill



FIG. 24. South Side of Entrance to Phrygian Gateway, looking South along Phrygian City Wall. In Foreground, Pavement of Persian Gate



FIG. 28. Phrygian Gate: wedge-shaped East Wall of North Court, looking North



FIG. 29. North Court of Phrygian Gate, showing Pithos Patches, Bedding of Beam for internal Wall (at Foot of Ladder), and Earth accumulated over Floor under Persian Rubble (at left)



FIG. 30. North Court of Phrygian Gate from Southwest. In Foreground, Persian "Dam Wall." At right, Rubble in Gateway, with Persian Wall on top



FIG. 31. Black polished Jug found on lower Floor of North Court



FIG. 32. Phrygian Gate: south Side of Central Gateway, showing Jog in South Wall, Ledge, and Workmen cleaning cobbled Pavement. In Foreground, the "Dam Wall"



FIG. 33. Central Opening of the Phrygian Gate from the West, with Persian Rubble Filling at left, and north Side of Persian inner Gate above (Line of white Stones). At far left, North Court



FIG. 34. Inner End of Phrygian Gateway at south Side, showing rough inner (east) Face of "Dam Wall" and accumulated Deposit under it. Built Pit at right



FIG. 35. Phrygian Gate: north Side of Doorway into South Court (at right) and south Side of Gateway



FIG. 36. Fragments of painted
Phrygian spouted Jar



FIG. 37. Cist Grave under Tumulus west of Gordion Site

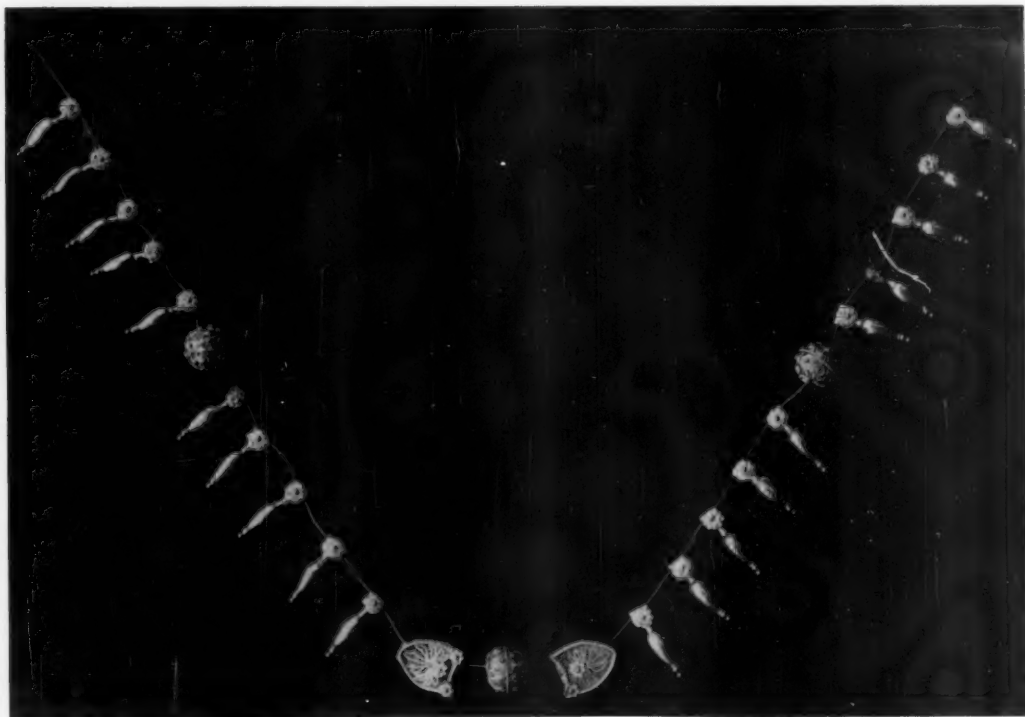


FIG. 38. Gold Necklace from Tumulus Burial



FIG. 1a Cycladic Idol in the Robinson Collection



FIG. 1b



(FIG. 1c) In City Art Museum of St. Louis



FIG. 2

Parian Marble Head in the Robinson Collection



FIG. 3



FIG. 4

Bronze Goat in the Robinson Collection



FIG. 5



FIG. 6 (above), FIG. 8 (below)



FIG. 7 (above) FIG. 9 (below)

Head of a Herm in the Robinson Collection



(FIG. 11) Herm from Siphnos,
National Museum, Athens



(FIG. 12) Profile of Fig. 11



(FIG. 10) Copy of Robinson Head, Athens



(FIG. 13)

Cincinnati Art Museum



(FIG. 14)



FIG. 15

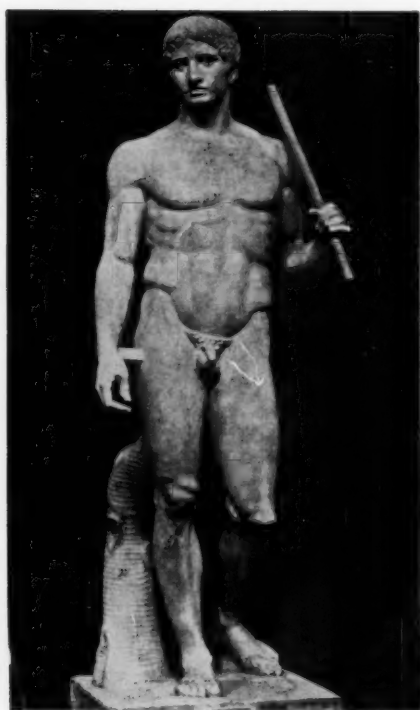


FIG. 16



FIG. 17

Statuette of Pan in the Robinson Collection



(FIG. 18) Doryphorus, Naples



(FIG. 19) Diadumenus,
Metropolitan Museum of Art



FIG. 20



FIG. 21



FIG. 22



FIG. 23

Head of Aphrodite in the Robinson Collection



FIG. 24



FIG. 25



FIG. 26



(FIG. 27) Head of Alexander
on Sarcophagus in Istanbul



(FIG. 28) From Magnesia,
now in Istanbul



(FIG. 29) Head of Alexander
on Sarcophagus in Istanbul

Head of Alexander (Figs. 24-26) in the Robinson Collection



FIG. 30



FIG. 31



FIG. 32



FIG. 33

Head of Seneca (?) in the Robinson Collection



FIG. 34



FIG. 35



FIG. 36



FIG. 37

Head of a Faun in the Robinson Collection



FIG. 38



FIG. 39



FIG. 40



FIG. 41

Terra Cotta Head in the Robinson Collection



FIG. 42



FIG. 43



FIG. 44



FIG. 45

Bust of a Roman Actor in the Robinson Collection



FIG. 46



FIG. 47

Head, probably of Augustus, in the Robinson Collection

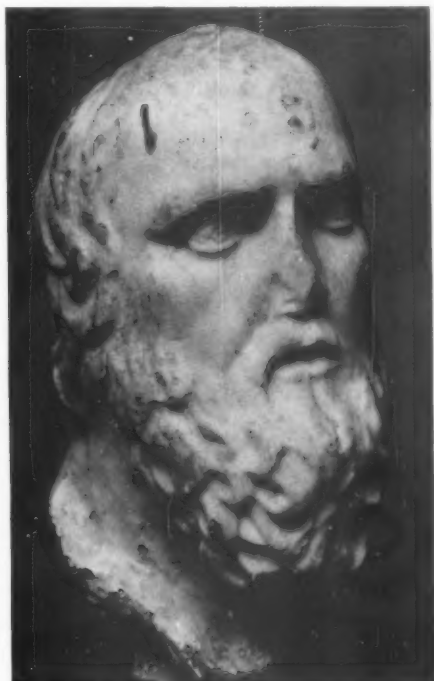


FIG. 48. Bust of a Philosopher
in the Robinson Collection

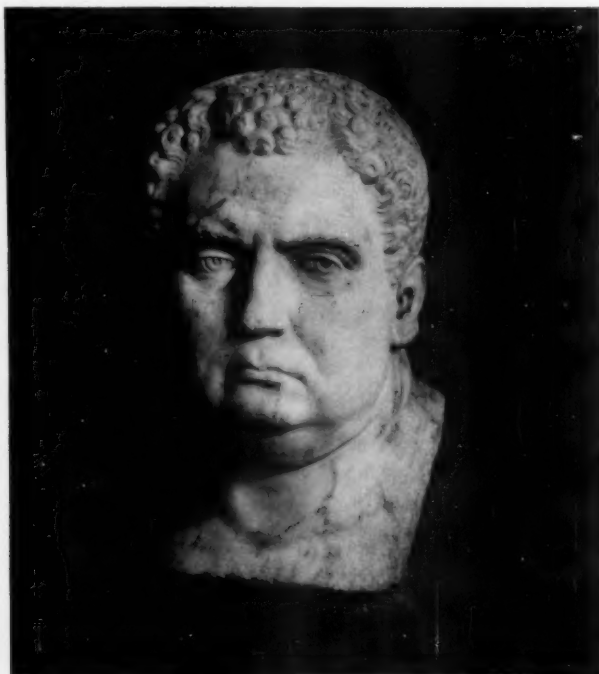


FIG. 49. Bust of Vitellius in the Robinson Collection

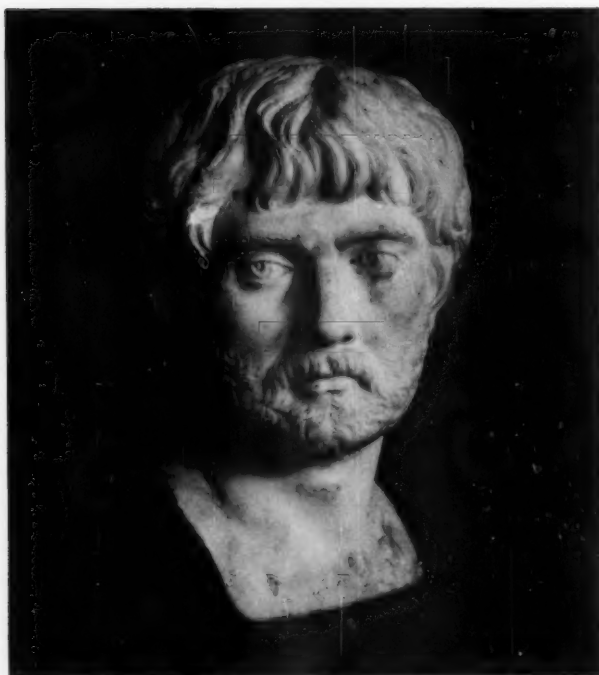


FIG. 50. Head of a Roman in the Robinson Collection



FIG. 1. Propylon from the South



FIG. 2. Propylon: Column Base with decorative Moulding of Stucco

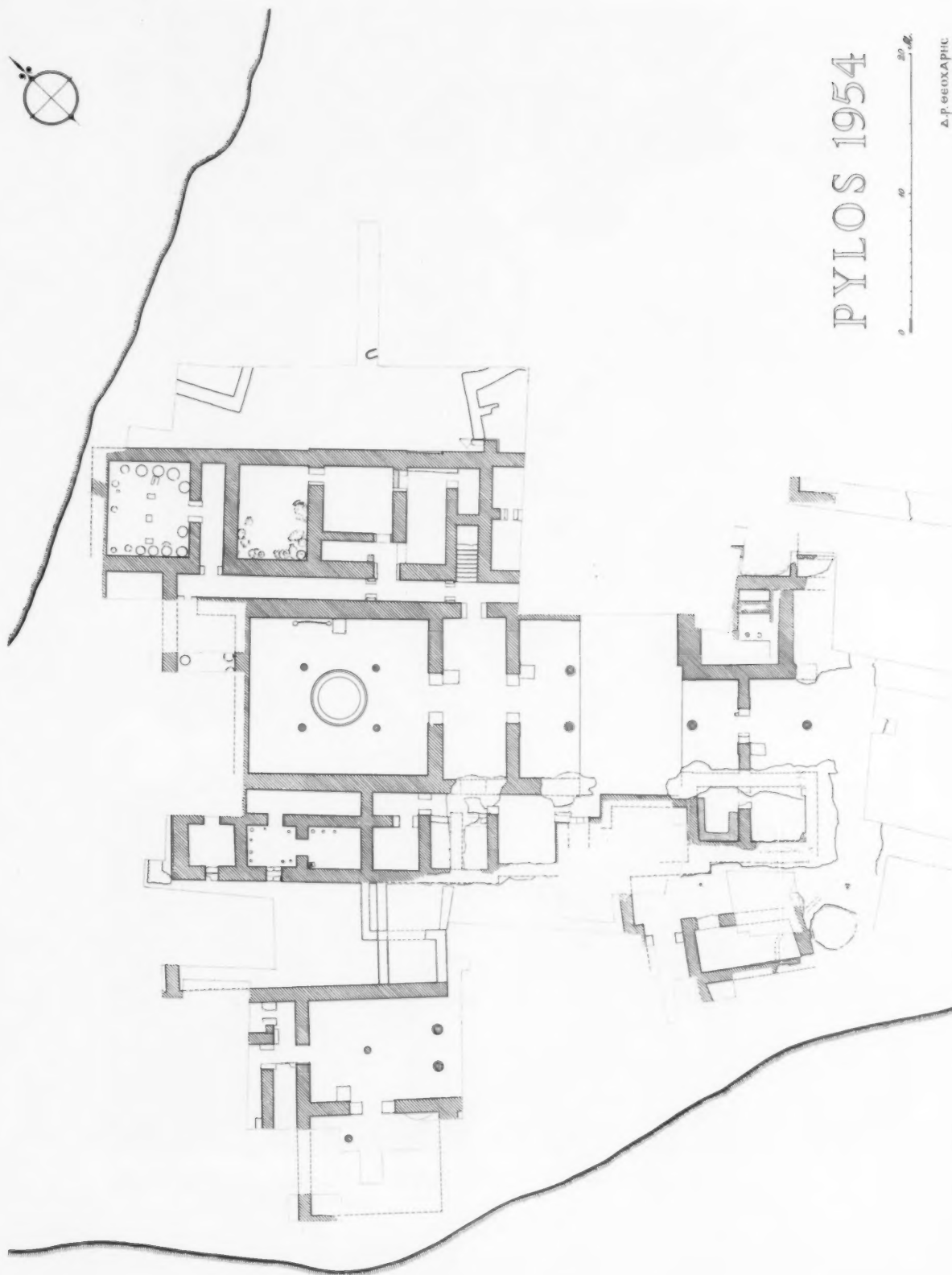


FIG. 3. Propylon: Bearded human Head of Gold and Niello (Scale 5:2)

PYLOS 1954

0 10 20 M.

ΔΡΕΦΟΧΑΡΙΤ



Plan of Palace as excavated through 1954



FIG. 4. Propylon: Amulet of Onyx (Scale 2:1)



FIG. 5. Propylon: Fallen Plaster on Floor of outer Colonnade



FIG. 7. Bronze Arrow Head from Room 62 (Scale ca. 3:2)

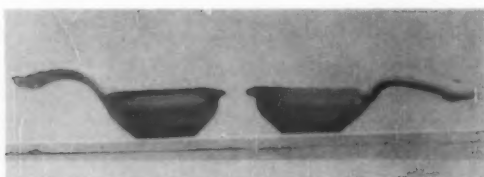


FIG. 6. Pots from Room 62

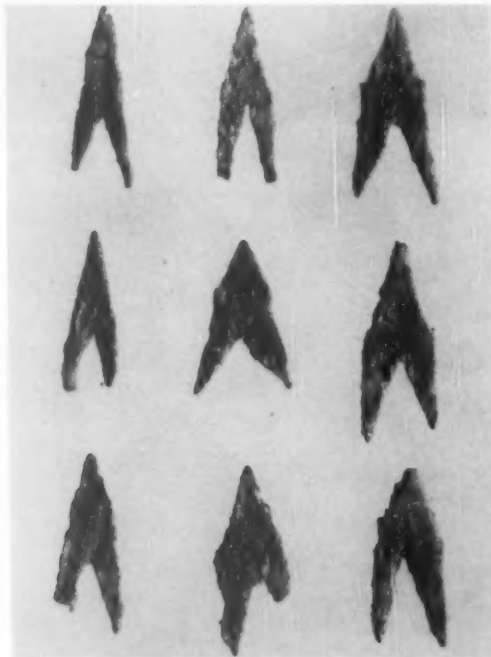


FIG. 8. Nine bronze Arrow Heads from Drain (Scale ca. 3:2)



FIG. 9. Area southwest of Megaron: Northeast Quarter of Palace in Background.
From Southwest



FIG. 10. Main Corridor in northeastern Quarter
of Palace. From Southeast



FIG. 11. Stairway to upper Floor in northeastern
Quarter of Palace



FIG. 12. Northeastern Quarter of Palace. From West



FIG. 13. Crushed Pithoi and other Pots
in south Corner of Room 48



FIG. 14. Northwest Magazine with Remains
of large Pithoi. From West



FIG. 15. Northeastern exterior Wall of Palace. From North



FIG. 16. Northeast Quarter of Palace: Small Stones as they fell from inner Face of exterior Wall. From Southeast



FIG. 17. Northeast Quarter of Palace: Large Blocks fallen from outer Face of exterior Wall. From North



FIG. 1. Horse on Solid Stand. Walters Art Gallery



FIG. 4. Fawn on Stand. Walters Art Gallery



FIG. 2. Under Side of Stand of Horse in Fig. 1

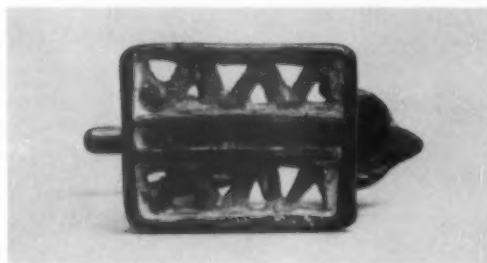


FIG. 5. Under Side of Stand of Fawn in Fig. 4



FIG. 3. Horse of Fig. 1, Showing Top of Stand



FIG. 6. Ram. Walters Art Gallery



FIG. 7. Horse. Walters Art Gallery
(Modern Support Under Body)



FIG. 8. Horse. Other Side of Fig. 7



FIG. 9. Horse. Walters Art Gallery



FIG. 10. Bull. Walters Art Gallery



FIG. 1



FIG. 2



FIG. 3



FIG. 4. Mural Painting from Boscoreale,
Museo Nazionale, Naples





FIG. 2



FIG. 4



FIG. 1



FIG. 3





A. Section of a Latex Squeeze of IG I² 19



B. Two Strips from a Latex Squeeze of IG I² 19



C. Section of a Latex Squeeze of the Prytaneion Decree



D. Section of a Latex Squeeze of Prytaneis, no. 28



A. Section of a Latex Squeeze of *Hesperia* 9 (1940) 123

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THE AMERICAN NUMISMATIC SOCIETY announces that its Summer Seminar in Numismatics will be held again in the summer of 1955, and the Society will again offer grants-in-aid to students who will have completed at least one year's graduate study in June, 1955, in archaeology, classics, economics, history, history of art, oriental languages, and other humanistic fields. Each study grant will carry a stipend of \$500. This offer is restricted to students enrolled in universities in the United States and Canada. Further information and application forms may be obtained from the office of the Society, Broadway between 155th and 156th Streets, New York 32, New York. Completed applications for the grants must be filed by March 1, 1955.

THE MIDDLE EAST INSTITUTE is preparing for publication an annual Survey of Research in Progress on the Middle East. Geographical limits: the Arab countries, Israel, Turkey, Iran, Afghanistan, North Africa, the Sudan, Ethiopia and Eritrea. Disciplinary limits: the social sciences and appropriate aspects of related fields (e.g., linguistics, archaeology, art, law and Islamics). Chronological limits: none (ancient, medieval and modern). All those currently engaged in research on the Middle East are urged to submit the following information: name, address, topic of investigation, sponsoring organization (if any), estimated date of completion, and pertinent comment on the nature of the research, sources being used, and method of approach. Please address correspondence to: Survey of Research, The Middle East Institute, 1761 N Street, N.W., Washington 6, D.C.

The Tenth International Congress of Historical Science, organized by the *Comitato Internazionale di Scienze Storiche* and the *Giunta Centrale per gli Studi Storici* will be held in Rome from the 4th to the 11th of September, 1955.

Those desiring further information regarding enrollment should communicate with:

Segreteria del X Congresso Internazionale di Scienze Storiche

Giunta Centrale per gli Studi Storici

Via M. Caetani 32, ROME